KP-46XBR35/53XBR35/61XBR38
RM-Y114A

SERVICE MANUAL

US Model

KP-46XBR35
Chassis No. SCC-F19R-A
KP-53XBR35
Chassis No. SCC-F19S-A
KP-61XBR38
Chassis No. SCC-F19V-A

Canadian Model

KP-53XBR35
Chassis No. SCC-F23G-A

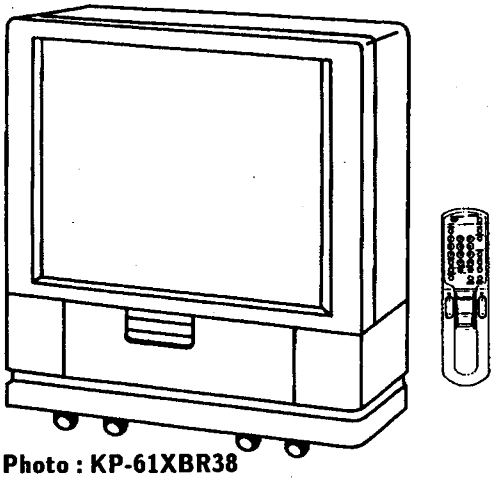

Photo : KP-61XBR38

AP CHASSIS

MODELS OF THE SAME SERIES	
KP-46XBR35/53XBR35/61XBR38	KP-46V15/46V16/53V15 KP-53V16/61V15
KP-46XBR25/53XBR25/61XBR28	
KP-41EXR95	KP-41EXR96

SPECIFICATIONS

Structure	Screen and projector, rear projection type
Projection system	3 picture tubes, 3 lenses, horizontal in-line system
Picture tube	7 inch high-brightness monochrome tubes (5.5 raster size), with optical coupling and liquid cooling system
Projection lenses	High performance, larger-diameter hybrid lens F 1.0
Screen material	Acrylic plastic filter, Acrylic plastic lenticular, Polycarbonate plastic fresnel
Projected picture size (in inches, measured diagonally)	46 (KP-46XBR35) 53 (KP-53XBR35) 61 (KP-61XBR38)
Screen brightness (cd/m^2)	**1,240 (KP-46XBR35)** **970 (KP-53XBR35)** **700 (KP-61XBR38)**

Television system	American TV standards
Channel coverage	VHF: 2-13 UHF: 14-69 CABLE TV: 1-125
Antenna	75- ohm external antenna terminal for VHF/UHF
Input jacks	VIDEO IN 1, 2 and 3 S VIDEO IN (4-pin mini DIN) Y: 1 Vp-p, 75-ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal) 75-ohms Video (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative Audio (phono jacks): 500 mVrms (100% modulation) Impedance: 47 kilo-ohms

- Continued on next page -

COLOR REAR VIDEO PROJECTOR

SONY®

MICROFILM

Output jacks	MONITOR OUT S VIDEO MONITOR OUT (4-pin mini DIN) Y:1 Vp-p, 75-ohms unbalanced, sync negative Video (phono jacks):1Vp-p, 75-ohms unbalanced, sync negative Audio (phono jacks):500mVrms (100% modulation) Impedance:10 kilo-ohms AUDIO (VAR) OUT (phono jacks) More than 900mVrms (100% modulation) at the maximum volume setting (variable) Impedance:5kilo-ohms AUDIO OUT (phono jacks) 900mVrms (100% modulation) Impedance:5kilo-ohms
Speaker	KP-46XBR35/53XBR35 Woofer 120 mm (4 3/4 inches) diameter Tweeter 25 mm (1 inches) diameter KP-61XBR38 Woofer 160 mm (6 1/2inches) diameter Tweeter 50 mm (2inches) diameter
Speaker output	20W×2 (FRONT) 10W×2 (REAR)
CENTER SPEAKER input	16Ω NORM. 30W MAX 50W

Power requirements	120 V AC, 60 Hz
Power consumption	350W (max.) 280W (avg.) 7W (standby mode)
Dimensions (w/h/d)	1,104×1,289×512 mm (43 1/2×50 3/4×20 1/4 inches) (KP-46XBR35) 1,238×1,339×638 mm (48 3/4×52 3/4×25 1/8 inches) (KP-53XBR35) 1,521×1,532×780 mm (60×60 3/8×30 3/4 inches) (KP-61XBR38)
Weight	90.7 kg (200 lb) (KP-46XBR35) 100.5 kg (221 lb 9 oz) (KP-53XBR35) 180.2 kg (397 lb 5 oz) (KP-61XBR38)
Supplied accessories	Remote Commander RM-Y114A (1) with 2 size AA (R6) EVEREADY batteries
Optional accessories	U/V mixer EAC-66 Connecting cable RK-74A VMC-810S/820S YC-15V/30V VCR Tray SU-PJT1 (except for KP-61XBR38)

Design and specifications are subject to change without notice.

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

(ATTENTION)

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURTCIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS ÁLA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SAFETY CHECK-OUT
(US Model Only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
   Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60–100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

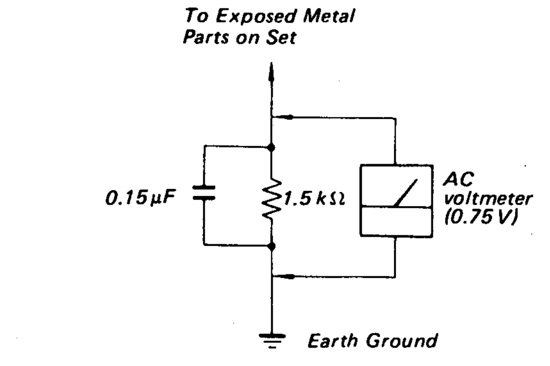

Fig. A. Using an AC voltmeter to check AC leakage.

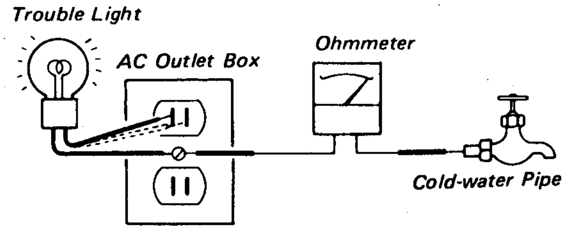

Fig. B. Checking for earth ground.

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The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

SECTION 1
GENERAL

1-1. UNPACKING AND VIEWING AREA

1 Carefully follow the instructions on the outside of the packing carton to unpack the projection TV.

Notes
- The supplied accessories are packed in the bottom of the carton. Be sure not to throw them away.
- Keep the original carton and packing materials to safely transport the projection TV in the future.

2 Check to make sure that the following is included:

Universal Remote Commander RM-Y114A (1)
with 2 size AA (R6) EVEREADY batteries

If the Remote Commander is missing, contact your dealer.

3 Place the projection TV in a cool, dry place where the ventilation openings at the sides are not blocked.

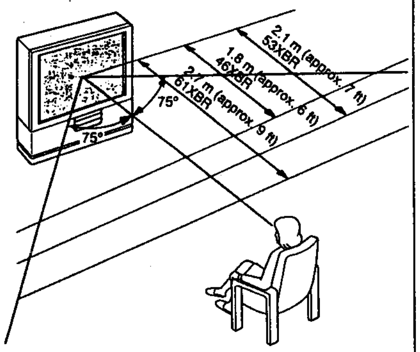
4 Plug the projection TV power cord into an AC 120 volt power outlet.

For further precautions, see p. 2.

Optimum viewing area

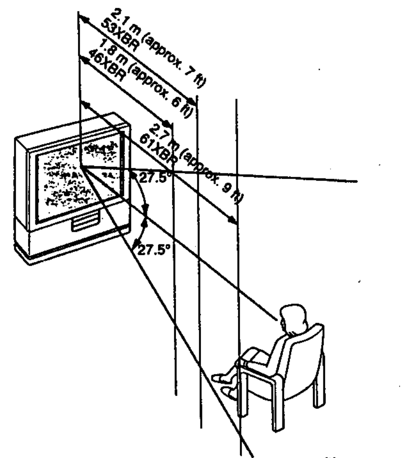
For the best picture quality, try to position the projection TV so that you can view the screen from within the areas shown below.

Horizontal viewing area


2.1 m (approx. 7 ft) 53XBR
1.8 m (approx. 6 ft) 46XBR
2.7 m (approx. 9 ft) 61XBR
75°
75°

Optimum viewing position

Vertical viewing area


2.1 m (approx. 7 ft) 53XBR
1.8 m (approx. 6 ft) 46XBR
2.7 m (approx. 9 ft) 61XBR
27.5°
27.5°

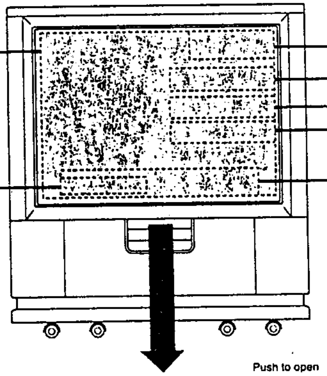
Optimum viewing position

1-2. LOCATING CONTROLS AND CONNECTORS

For details, see the pages indicated by the numbered black circles ●.

Front

KP-61XBR38
(The screen displays are the same for all models.)



On-screen menu displays

CURRENT TIME displays
CLOSED CAPTION mode display ㊳ – ㊴ (65)– (66)

Main picture input mode/video label
Channel number display
SLEEP, MUTING displays ㊵

Channel caption display (61)– (62)

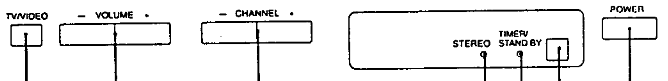
MTS (SAP) mode display ㊵ (58)

PIP (Picture-in-Picture) input mode display ㊺ – ㊽

Bar display for volume, picture or sound adjustment ㊲ ㊿ – (51) (57) (60)

Push to open

KP-61XBR38


TV/VIDEO
– VOLUME +
– CHANNEL +
STEREO
TIMER/ STAND BY
POWER

CHANNEL +/– buttons*
㉛ ㉝ ㊲ (61) (78)

VOLUME +/– buttons* ⑲ ㊲ ㊵

TV/VIDEO button*

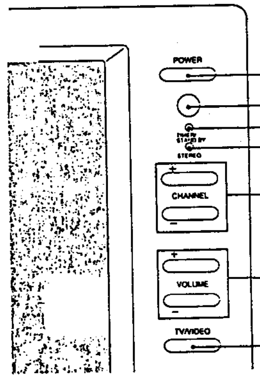
POWER switch*

Remote control detector

TIMER/STAND BY indicator lamp
㉔ ㊱ (68)

STEREO indicator lamp (58)

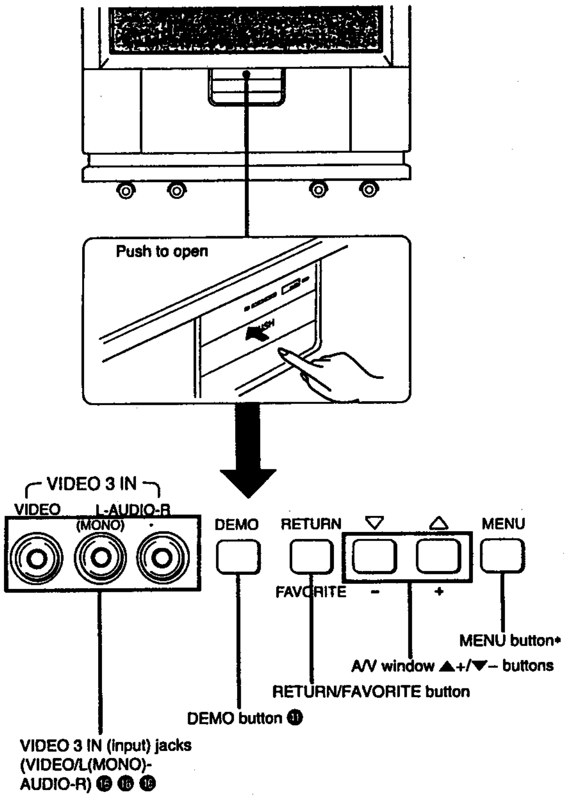
KP-46XBR35/53XBR35


POWER
TIMER/ STAND BY
STEREO
CHANNEL
VOLUME
TV/VIDEO

POWER switch*
Remote control detector
TIMER/STAND BY indicator lamp ㉔ ㊱ (68)
STEREO indicator lamp (58)
CHANNEL +/– buttons*
㉛ ㉝ ㊲ (61) (78)
VOLUME +/–buttons* ⑲ ㊲ ㊵
TV/VIDEO button*

* Buttons with the same function are also located on the Remote Commander (p. 10).

Front inner panel


KP-61XBR38
Push to open
PUSH
VIDEO 3 IN
VIDEO
L-AUDIO-R
(MONO)
DEMO
RETURN
▽
△
MENU
FAVORITE
-
+
MENU button*
A/V window ▲+/▼– buttons
RETURN/FAVORITE button
DEMO button ⑪
VIDEO 3 IN (input) jacks
(VIDEO/L(MONO)-
AUDIO-R) ⑮ ⑯ ⑱

* Buttons with the same function are also located on the Remote Commander (p. 10).

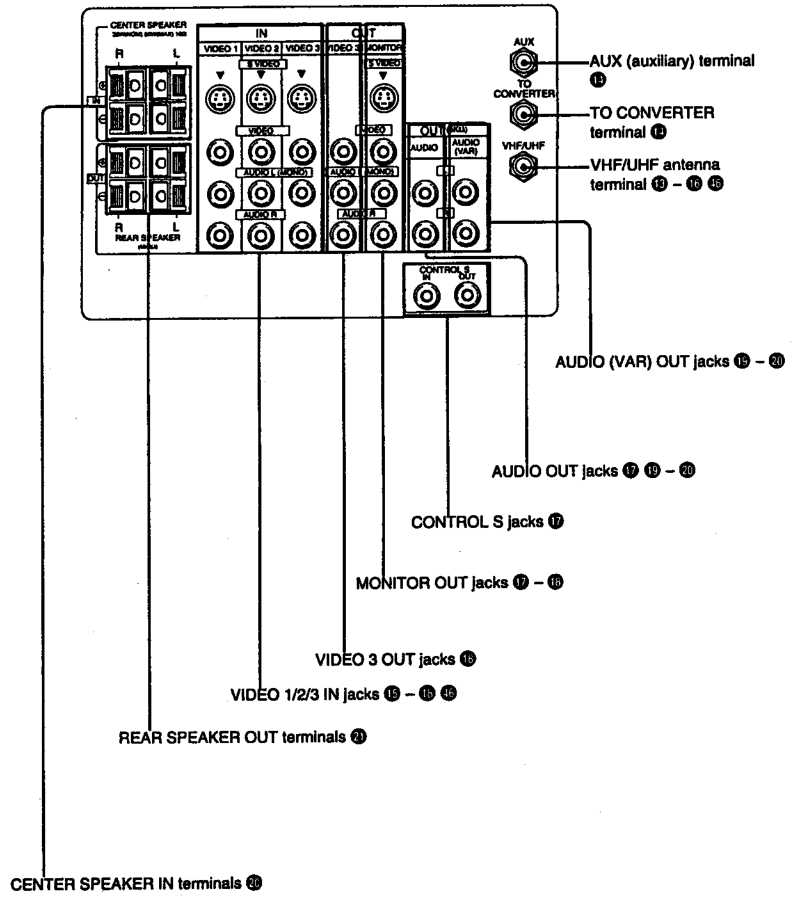
Note

The instructions in this manual are based for the most part on operating the projection TV with the Remote Commander. You can also use the buttons on the projection TV that have the same function.

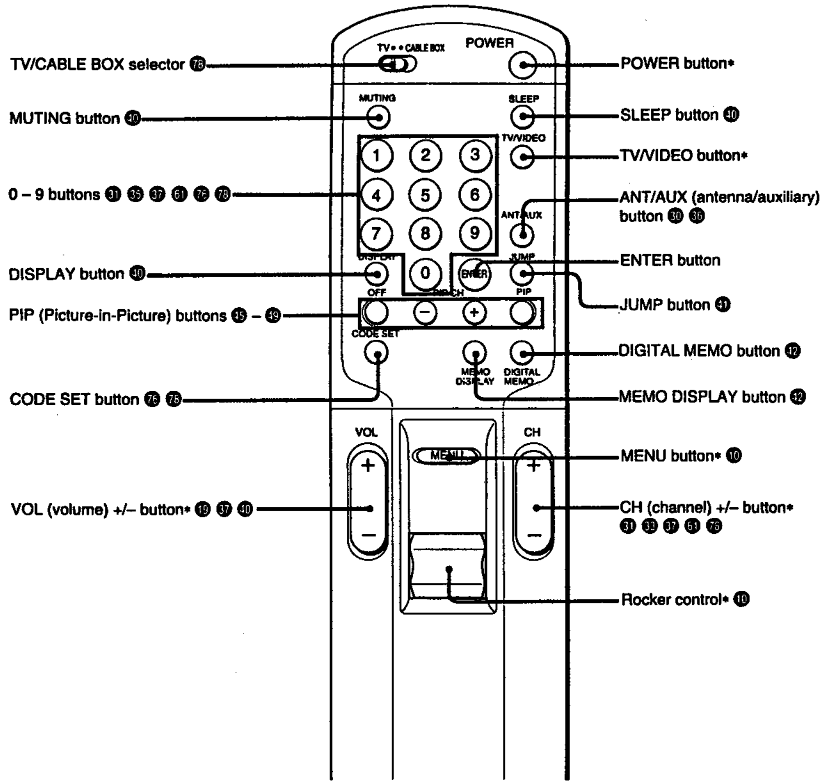
The following are controls that are of different types, but have exactly the same function.

Projection TV	A/V window ▲+/▼– buttons	RETURN button
Remote Commander	Rocker control (press up or down)	Rocker control (click)

Rear


CENTER SPEAKER
R
L
IN
OUT
REAR SPEAKER
VIDEO 1
VIDEO 2
VIDEO 3
S VIDEO
VIDEO
AUDIO L (MONO)
AUDIO R
MONITOR
AUDIO
AUDIO (VAR)
CONTROL S
AUX
TO CONVERTER
VHF/UHF
AUX (auxiliary) terminal ⑭
TO CONVERTER terminal ⑭
VHF/UHF antenna terminal ⑬ – ⑯ ㊻
AUDIO (VAR) OUT jacks ⑲ – ⑳
AUDIO OUT jacks ⑰ ⑲ – ⑳
CONTROL S jacks ⑰
MONITOR OUT jacks ⑰ – ⑱
VIDEO 3 OUT jacks ⑮
VIDEO 1/2/3 IN jacks ⑮ – ⑯ ㊻
REAR SPEAKER OUT terminals ㉑
CENTER SPEAKER IN terminals ⑳

Remote Commander RM-Y114A (Outer panel controls)


TV• • CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
7
8
9
0
ANT/AUX
DISPLAY
ENTER
JUMP
OFF
PIP
CH
CODE SET
MEMO DISPLAY
DIGITAL MEMO
VOL
CH
MENU

TV/CABLE BOX selector (78)

MUTING button ㊵

0 – 9 buttons ㉛ ㉟ ㊲ (61) (76) (78)

DISPLAY button ㊵

PIP (Picture-in-Picture) buttons ㊺ – ㊾

CODE SET button (76) (75)

VOL (volume) +/– button* ⑲ ㊲ ㊵

POWER button*

SLEEP button ㊵

TV/VIDEO button*

ANT/AUX (antenna/auxiliary) button ㉚ ㊱

ENTER button

JUMP button ㊶

DIGITAL MEMO button ㊷

MEMO DISPLAY button ㊷

MENU button* ⑩

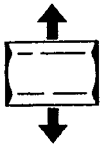
CH (channel) +/– button* ㉛ ㉝ ㊲ (51) (76)

Rocker control* ⑩

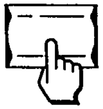
Using the rocker control

Use the rocker control to make on-screen menu selections (see p. 22).

Press the control up or down to make a selection.



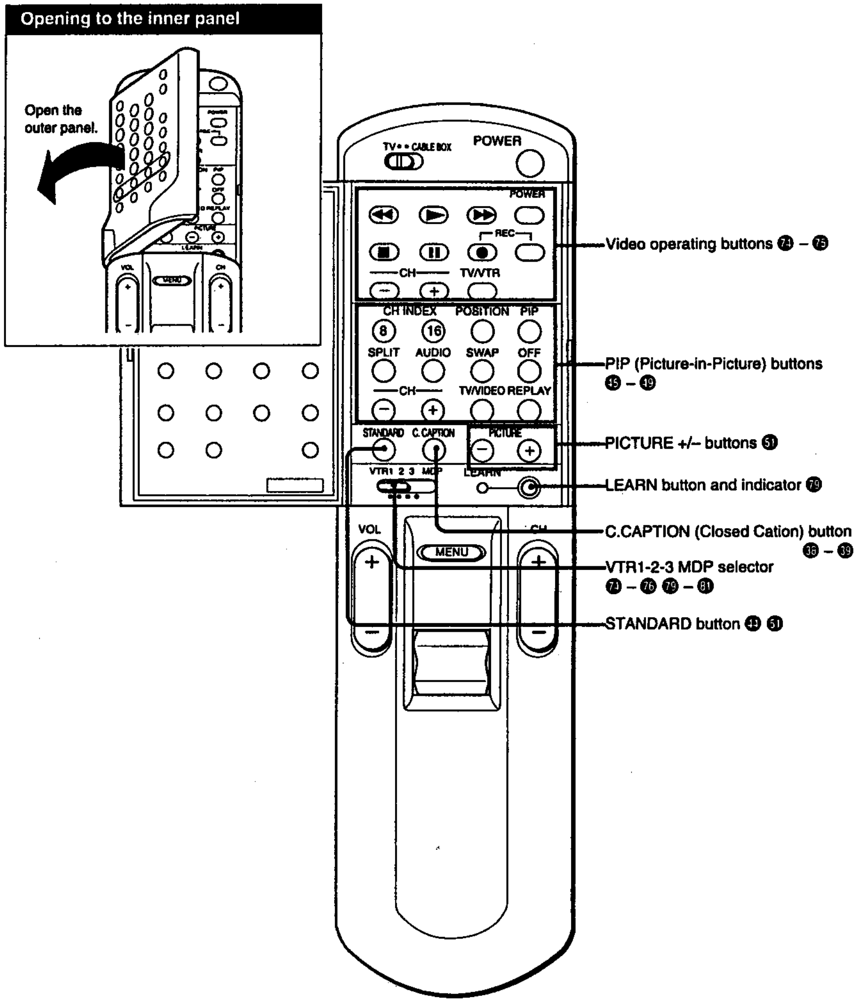
Click the control to execute the selection.



* Buttons with the same function are also located on the projection TV (pp. 7 – 8).

Note
If the TV/CABLE BOX selector is set to CABLE BOX, the Remote Commander is able to control a connected cable box, not the projection TV (p. 74). Set the selector to TV to control the projection TV with the Remote Commander.

Remote Commander RM-Y114A (Inner panel controls)


TV• • CABLE BOX
POWER
POWER
REC
CH
TV/VTR
CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO REPLAY
STANDARD
C.CAPTION
PICTURE
VTR1 2 3 MDP
LEARN
VOL
CH
MENU

Opening to the inner panel

Open the outer panel.

Video operating buttons (74) – (75)

PIP (Picture-in-Picture) buttons ㊺ – ㊾

PICTURE +/– buttons (51)

LEARN button and indicator (79)

C.CAPTION (Closed Cation) button ㊳ – ㊴

VTR1-2-3 MDP selector (74) – (76) (79) – (81)

STANDARD button ㊾ (51)

1-3. USING THE ON-SCREEN MENUS

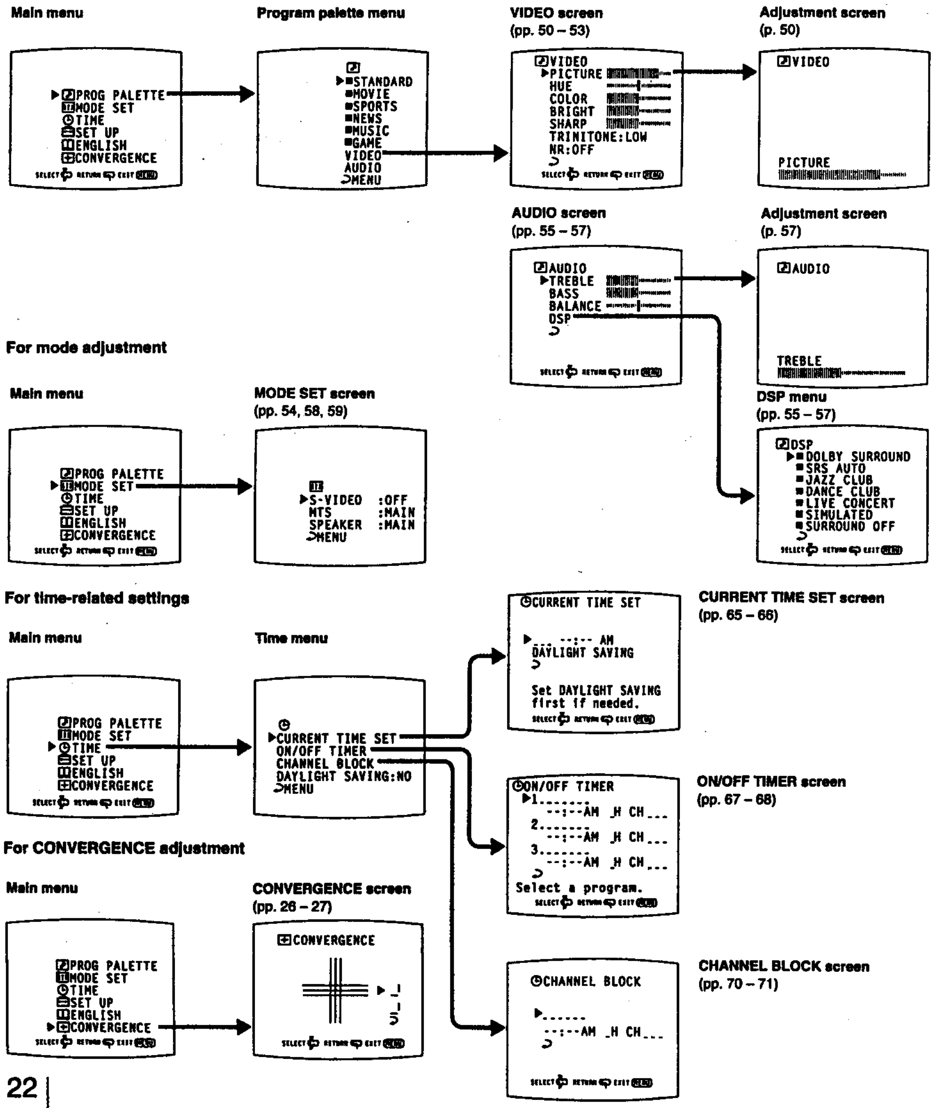
The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.

For picture and sound quality adjustment

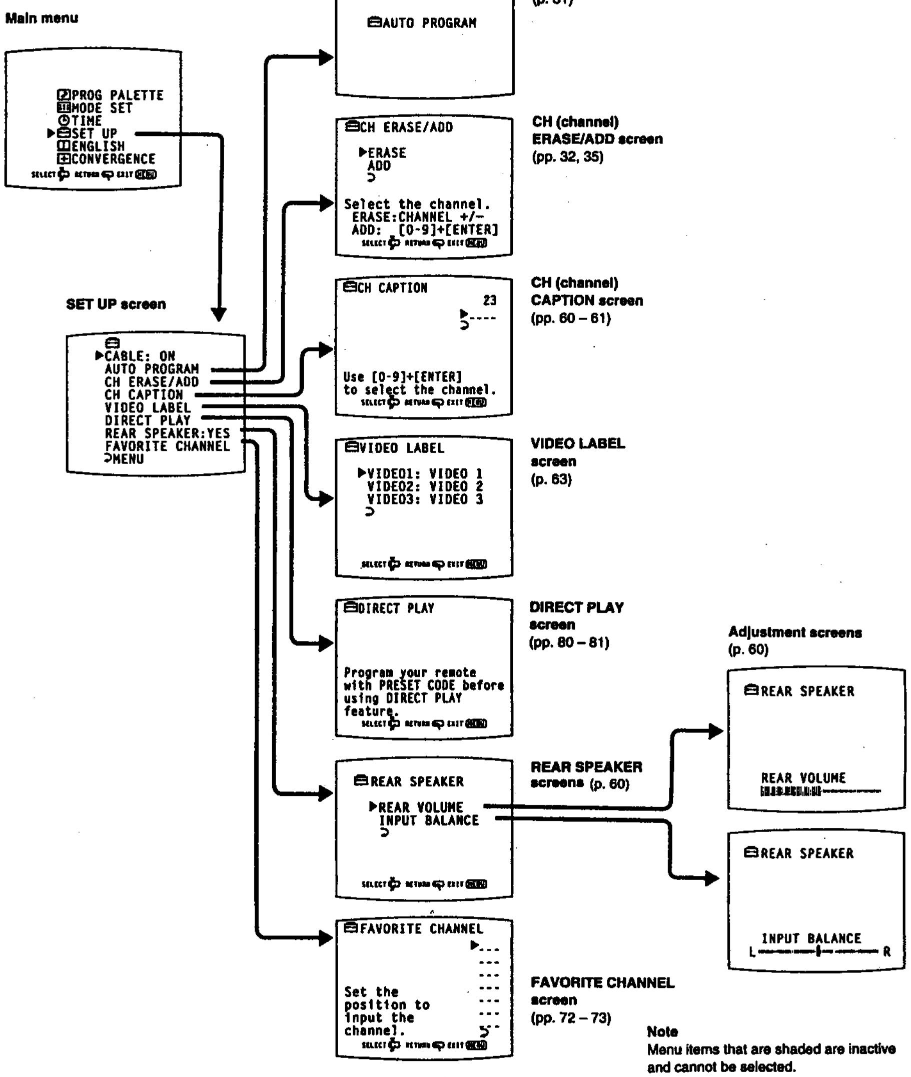
For mode adjustment

For time-related settings

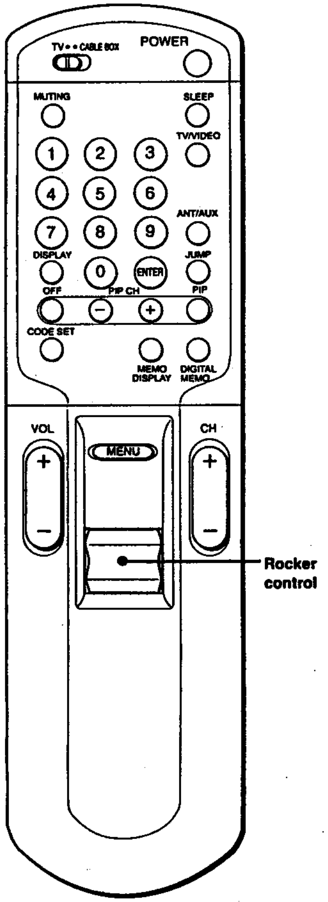
For CONVERGENCE adjustment


Main menu
▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT
Program palette menu
▶STANDARD
MOVIE
SPORTS
NEWS
MUSIC
GAME
VIDEO
AUDIO
MENU
VIDEO screen
(pp. 50 – 53)
VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
Adjustment screen
(p. 50)
VIDEO
PICTURE
AUDIO screen
(pp. 55 – 57)
AUDIO
▶TREBLE
BASS
BALANCE
DSP
Adjustment screen
(p. 57)
AUDIO
TREBLE
DSP menu
(pp. 55 – 57)
DSP
▶DOLBY SURROUND
SRS AUTO
JAZZ CLUB
DANCE CLUB
LIVE CONCERT
SIMULATED
SURROUND OFF
Main menu
MODE SET screen
(pp. 54, 58, 59)
▶S-VIDEO :OFF
MTS :MAIN
SPEAKER :MAIN
MENU
Main menu
Time menu
▶CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
MENU
CURRENT TIME SET
▶-- --:-- AM
DAYLIGHT SAVING
Set DAYLIGHT SAVING first if needed.
CURRENT TIME SET screen
(pp. 65 – 66)
ON/OFF TIMER
▶1.------ --:--AM _H CH___
2.------ --:--AM _H CH___
3.------ --:--AM _H CH___
Select a program.
ON/OFF TIMER screen
(pp. 67 – 68)
CHANNEL BLOCK
▶------ --:--AM _H CH___
CHANNEL BLOCK screen
(pp. 70 – 71)
Main menu
CONVERGENCE screen
(pp. 26 – 27)
CONVERGENCE

For presetting and other functions


Main menu
PROG PALETTE
MODE SET
TIME
▶SET UP
ENGLISH
CONVERGENCE
SET UP screen
▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:YES
FAVORITE CHANNEL
MENU
AUTO PROGRAM
AUTO PROGRAM screen
(p. 31)
CH ERASE/ADD
▶ERASE
ADD
Select the channel.
ERASE:CHANNEL +/-
ADD: [0-9]+[ENTER]
CH (channel) ERASE/ADD screen
(pp. 32, 35)
CH CAPTION
23
Use [0-9]+[ENTER] to select the channel.
CH (channel) CAPTION screen
(pp. 60 – 61)
VIDEO LABEL
▶VIDEO1: VIDEO 1
VIDEO2: VIDEO 2
VIDEO3: VIDEO 3
VIDEO LABEL screen
(p. 63)
DIRECT PLAY
Program your remote with PRESET CODE before using DIRECT PLAY feature.
DIRECT PLAY screen
(pp. 80 – 81)
REAR SPEAKER
▶REAR VOLUME
INPUT BALANCE
REAR SPEAKER screens (p. 60)
Adjustment screens
(p. 60)
REAR SPEAKER
REAR VOLUME
REAR SPEAKER
INPUT BALANCE
L R
FAVORITE CHANNEL
Set the position to input the channel.
FAVORITE CHANNEL screen
(pp. 72 – 73)

Note
Menu items that are shaded are inactive and cannot be selected.


TV• •CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
7
8
9
0
ANT/AUX
DISPLAY
JUMP
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
VOL
CH
MENU
Rocker control

Navigating through the menus

To display the main menu
Press MENU.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU." Then click the rocker control.

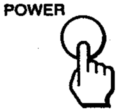
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

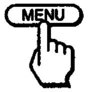
Changing the menu language

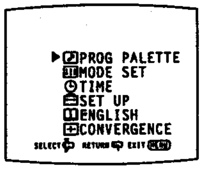
The menu language is factory-set to ENGLISH. Follow these instructions to change the menu language to Spanish or French, or back to English.

1 Press POWER to turn on the projection TV.
TIMER/STAND BY indicator blinks until the picture appears.

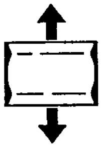


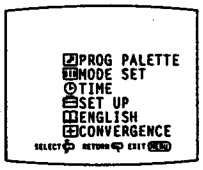
2 Press MENU.
The main menu appears.



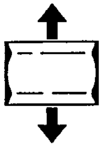

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

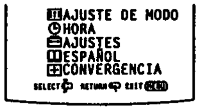
3 Press the rocker control up or down until the cursor points to "ENGLISH." Then click the rocker control.
The language display turns red.

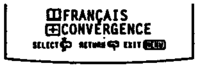


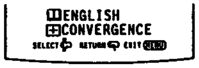

PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

4 Press the rocker control up or down to select the language.
Each time you press the rocker control up or down, the "ESPAÑOL," "FRANÇAIS" and "ENGLISH" menus appear.



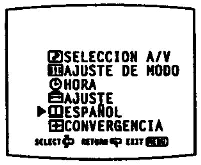

AJUSTE DE MODO
HORA
AJUSTES
ESPAÑOL
CONVERGENCIA
SELECT RETURN EXIT MENU


FRANÇAIS
CONVERGENCE
SELECT RETURN EXIT MENU


ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

Note
Certain parts of the "ESPAÑOL" and "FRANCAIS" menus remain in English.

5 Click the rocker control.
The language is selected.

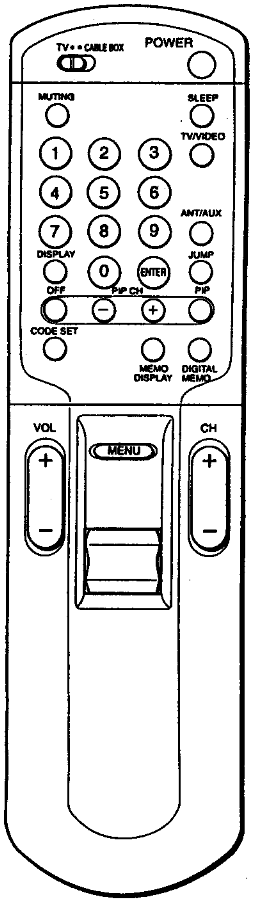

SELECCION A/V
AJUSTE DE MODO
HORA
AJUSTE
▶ESPAÑOL
CONVERGENCIA
SELECT RETURN EXIT MENU

Spanish menu

To return to the normal screen.
Press MENU on the Remote Commander.

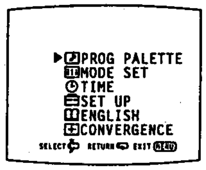
Notes concerning menus
- During PIP (Picture-in-Picture) mode, the on-screen menus may overlap the window picture.
- The menus disappear automatically, if you do not press a button within 90 seconds.

1-4. ADJUSTING COLOR REGISTRATION (CONVERGENCE)

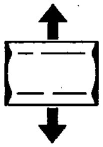

TV• •CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
0
ENTER
JUMP
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
VOL
MENU
CH

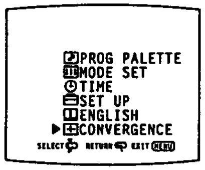
In a projection TV, the projection tube image appears on the screen in three color layers (red, green and blue). If these layers are not in proper registration, the color is poor and the picture blurs. To correct this, perform the CONVERGENCE adjustment.

1 Press MENU.
The main menu appears.

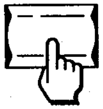

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Press the rocker control up or down until the cursor points to "CONVERGENCE."

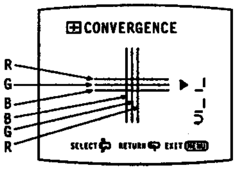



PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
▶CONVERGENCE
SELECT RETURN EXIT MENU

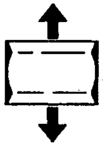
3 Click the rocker control.
The CONVERGENCE screen and the colored adjustment lines appear.

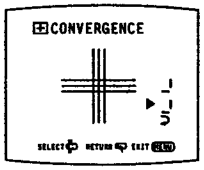


R = Red
G = Green
B = Blue


CONVERGENCE
R
G
B
B
G
R
SELECT RETURN EXIT MENU

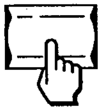
4 Press the rocker control up or down until the cursor points to the symbol representing the line you want to adjust (see the key below).

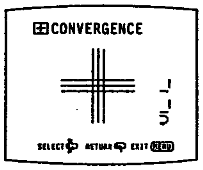



CONVERGENCE
SELECT RETURN EXIT MENU

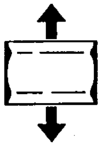
Adjustment line symbols key
| (red vertical: left/right adjustment)
— (red horizontal: up/down adjustment)
| (blue vertical: left/right adjustment)
— (blue horizontal: up/down adjustment)

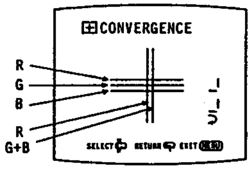
5 Click the rocker control.
The adjustment line is selected.




CONVERGENCE
SELECT RETURN EXIT MENU

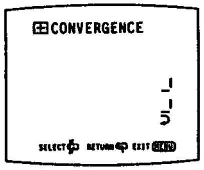
6 Press the rocker control up or down until the line converges with the center green line. Then click the rocker control.




CONVERGENCE
R
G
B
R
G+B
SELECT RETURN EXIT MENU

To move up To move right	Press the rocker control up.
To move down To move left	Press the rocker control down.

7 Repeat steps 4 – 6 to adjust the other lines, until all the lines have overlapped to form a white cross.

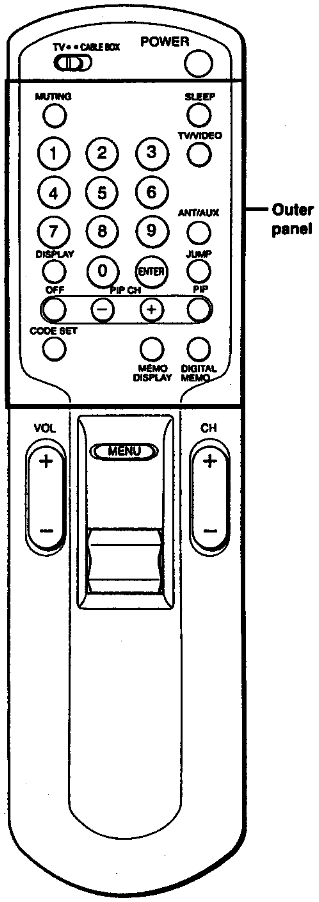

CONVERGENCE
SELECT RETURN EXIT MENU

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

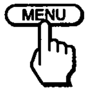
1-5. SETTING CABLE ON OR OFF

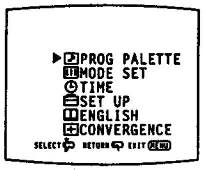


If you have cable connected to the projection TV, follow the steps below to set the cable connection on or off. Set CABLE OFF to preset or watch VHF or UHF channels, and set CABLE ON to preset or watch cable TV channels.

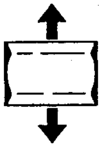
Note
If the projection TV is in video mode, the "CABLE" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.

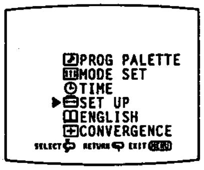
1 Press MENU.
The main menu appears.



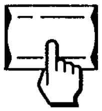

```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT RETURN EXIT MENU
```

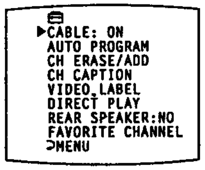
2 Press the rocker control up or down until the cursor points to "SET UP."



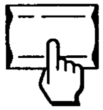

```
 PROG PALETTE
 MODE SET
 TIME
▶SET UP
 ENGLISH
 CONVERGENCE
SELECT RETURN EXIT MENU
```

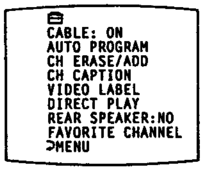
3 Click the rocker control.
The set up menu appears, and the cursor points to "CABLE."



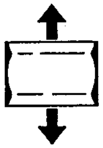

```
▶CABLE: ON
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER:NO
 FAVORITE CHANNEL
 ⊃MENU
```

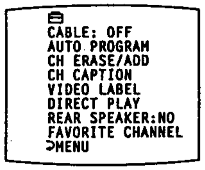
4 Click the rocker control again.
The mode display turns red.



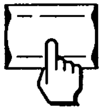

```
CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU
```

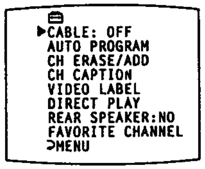
5 Press the rocker control up or down to select "ON" or "OFF."




```
CABLE: OFF
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU
```

6 Click the rocker control.
The setting is complete.




```
▶CABLE: OFF
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER:NO
 FAVORITE CHANNEL
 ⊃MENU
```

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

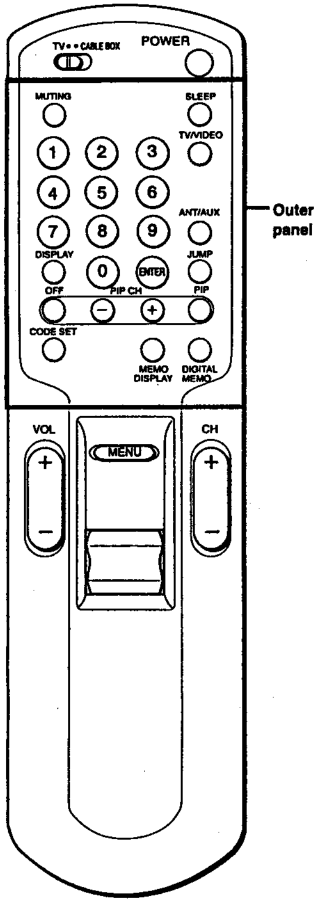
Cable TV channel chart•
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

Number on this projection TV	Corresponding CATV channel
1	A-8
5	A-7
6	A-6
14	A
15	B
16	C
17	D
18	E
19	F
20	G
21	H
22	I
23	J
24	K
25	L
26	M
27	N
28	O
29	P
30	Q
31	R
32	S
33	T
34	U
35	V
36	W
37	W+1
38	W+2
39	W+3
⋮	⋮
93	W+57
94	W+58
95	A-5
96	A-4
97	A-3
98	A-2
99	A-1
100	W+59
101	W+60
102	W+61
⋮	⋮
123	W+82
124	W+83
125	W+84

Check with your local cable TV company for more complete information on the available channels.
- The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

1-6. PRESETTING TV CHANNELS

By presetting TV channels to the projection TV, you can select channels by pressing CH (CHANNEL) +/–.
(You can select VHF channels 2 – 13 without presetting.)


TV• •CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
VOL
MENU
CH
Outer panel

Presetting all receivable channels automatically

Follow these instructions to preset all the receivable VHF, UHF or cable TV channels to the projection TV.

Notes

- If the projection TV is in video mode, the "AUTO PROGRAM" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.
- Perform auto programming during the day rather than late at night, when some channels may not be broadcasting.

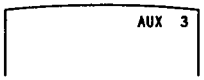
1 Set the cable connection on or off (pp. 28 – 29) to select the type of channel you want to preset, VHF/UHF or cable TV.

To preset VHF
or UHF channels

To preset
cable TV channels

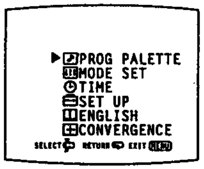
Press ANT/AUX to select the type of channel you want to preset, VHF/UHF/regular cable TV, or pay cable TV connected to the AUX (auxiliary) terminal.

To preset VHF, UHF
or regular cable
TV channels

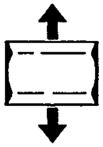


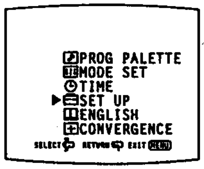
To preset pay cable
TV channels

2 Press MENU.
The main menu appears.

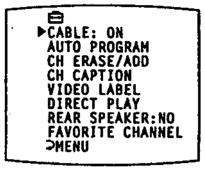

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

3 Press the rocker control up or down until the cursor points to "SET UP."

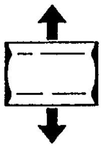


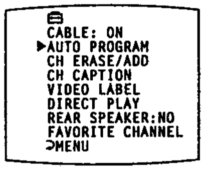

PROG PALETTE
MODE SET
TIME
▶SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

4 Click the rocker control.
The set up menu appears.

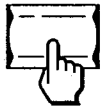

▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

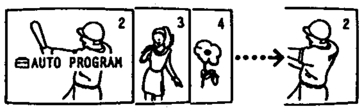
5 Press the rocker control up or down until the cursor points to "AUTO PROGRAM."




CABLE: ON
▶AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

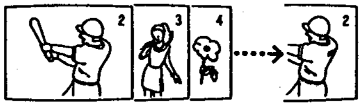
6 Click the rocker control.




2
AUTO PROGRAM
3
4
2

"AUTO PROGRAM" appears on the screen and receivable channels (other than the channels already preset) are preset in numerical sequence. The channels previously preset will not remain in the projection TV's memory.
When no more channels are found, auto programming stops and the screen returns automatically to the set up menu.

7 Press CH +/– to check or view the preset channels.



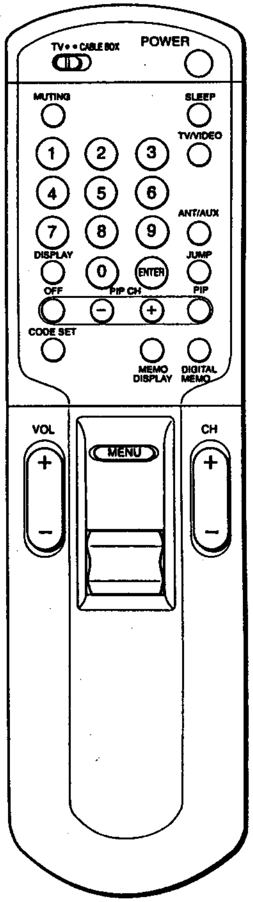
Receivable channels for this projection TV
VHF: 2 – 13
UHF: 14 – 69
Cable: 1 – 125

To select TV channels without presetting
Press the 0 – 9 buttons and ENTER.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

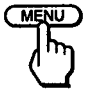
To return to the normal screen.
Press MENU on the Remote Commander.

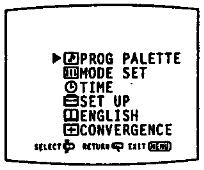


Erasing TV channels

Follow these instructions to erase unnecessary TV channels, so that when you press CH +/–, the channel(s) are skipped.

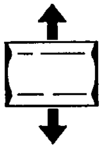
1 Press MENU.
The main menu appears.

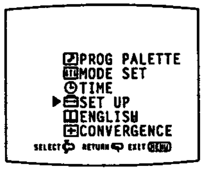




```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT RETURN EXIT MENU
```

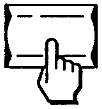
2 Press the rocker control up or down until the cursor points to "SET UP."

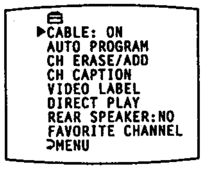




```
 PROG PALETTE
 MODE SET
 TIME
▶SET UP
 ENGLISH
 CONVERGENCE
SELECT RETURN EXIT MENU
```

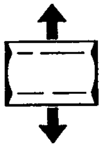
3 Click the rocker control.
The set up menu appears.

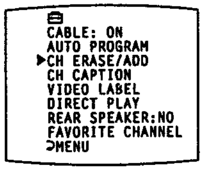




```
▶CABLE: ON
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER:NO
 FAVORITE CHANNEL
 ⊃MENU
```

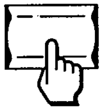
4 Press the rocker control up or down until the cursor points to "CH ERASE/ADD."

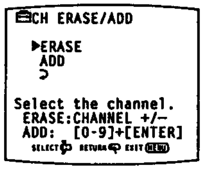




```
 CABLE: ON
 AUTO PROGRAM
▶CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER:NO
 FAVORITE CHANNEL
 ⊃MENU
```

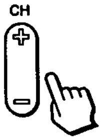
5 Click the rocker control.
The CH ERASE/ADD screen appears, and the cursor points to "ERASE."

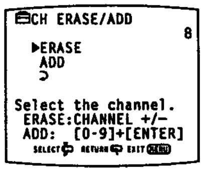




```
CH ERASE/ADD
 ▶ERASE
  ADD
  ⊃
Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
 SELECT RETURN EXIT MENU
```

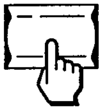
6 Press CH +/– to select the channel you want to erase.
The channel display appears.

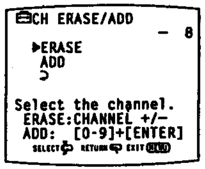




```
CH ERASE/ADD
                    8
 ▶ERASE
  ADD
  ⊃
Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
 SELECT RETURN EXIT MENU
```

7 Click the rocker control.
A "–" sign appears in front of the channel number display, indicating that the channel is erased; then the CH ERASE/ADD screen automatically reappears.





```
CH ERASE/ADD
                  - 8
 ▶ERASE
  ADD
  ⊃
Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
 SELECT RETURN EXIT MENU
```

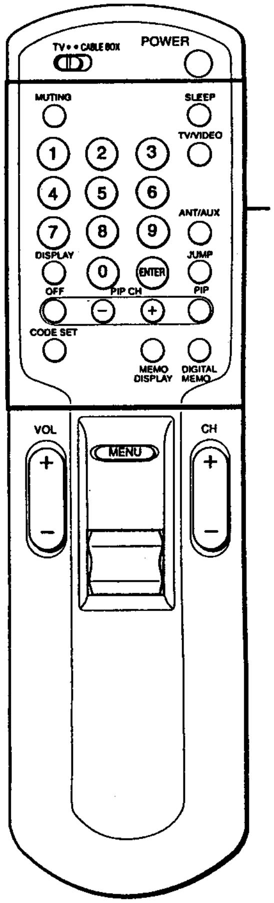
To erase another channel
Repeat steps 6 – 7.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

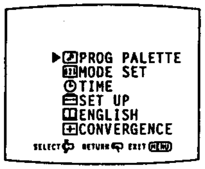
Note
If you erase a VHF or UHF channel, the same number cable TV channel is also erased (and vice versa).



Adding TV channels

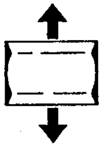
Follow these instructions to add TV channels one by one to the selection memory, or to replace a TV channel you previously erased (pp. 32 – 33).

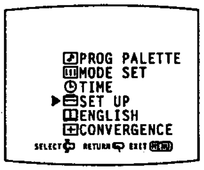
1 Press MENU.
The main menu appears.



```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT RETURN EXIT MENU
```

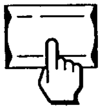
2 Press the rocker control up or down until the cursor points to "SET UP."

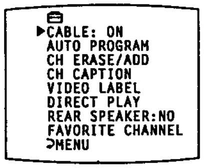




```
 PROG PALETTE
 MODE SET
 TIME
▶SET UP
 ENGLISH
 CONVERGENCE
SELECT RETURN EXIT MENU
```

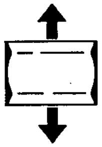
3 Click the rocker control.
The set up menu appears.

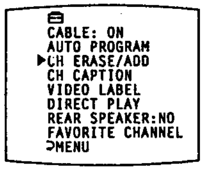




```
▶CABLE: ON
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER:NO
 FAVORITE CHANNEL
 ⊃MENU
```

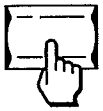
4 Press the rocker control up or down until the cursor points to "CH ERASE/ADD."

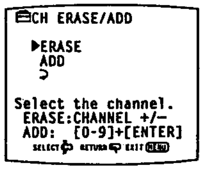




```
 CABLE: ON
 AUTO PROGRAM
▶CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER:NO
 FAVORITE CHANNEL
 ⊃MENU
```

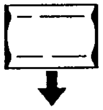
5 Click the rocker control.
The CH ERASE/ADD screen appears.

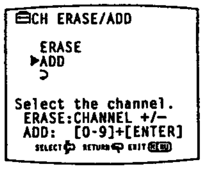




```
CH ERASE/ADD

 ▶ERASE
  ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/−
 ADD:  [0-9]+[ENTER]
SELECT RETURN EXIT MENU
```

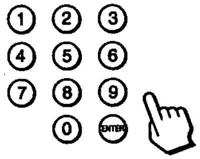
6 Press the rocker control down until the cursor points to "ADD."

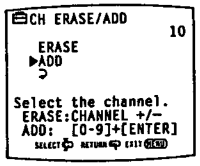




```
CH ERASE/ADD

  ERASE
 ▶ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/−
 ADD:  [0-9]+[ENTER]
SELECT RETURN EXIT MENU
```

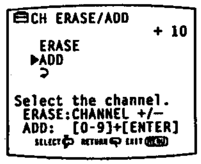
7 Press 0 – 9 and ENTER on the Remote Commander to select the channel you want to add.
The channel display appears.





```
CH ERASE/ADD
                    10
  ERASE
 ▶ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/−
 ADD:  [0-9]+[ENTER]
SELECT RETURN EXIT MENU
```

8 Click the rocker control.
A "+" sign appears in front of the channel number display, indicating that the channel is added; then the CH ERASE/ADD screen automatically reappears.



```
CH ERASE/ADD
                  + 10
  ERASE
 ▶ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/−
 ADD:  [0-9]+[ENTER]
SELECT RETURN EXIT MENU
```

To add another channel
Repeat steps 7 – 8.

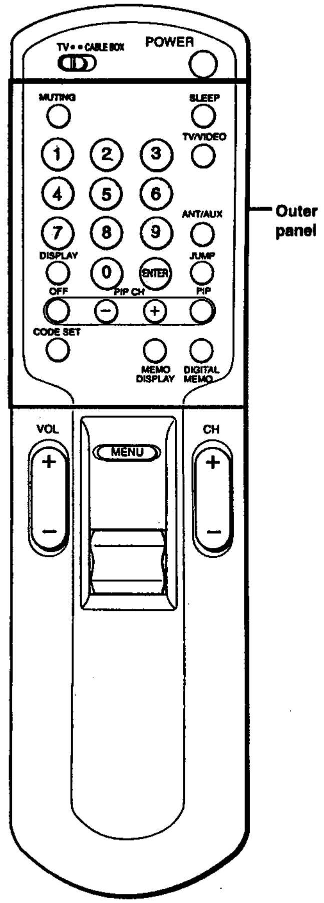
To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

Note
If you add a VHF or UHF channel, the same number cable TV channel is also added (and vice versa).

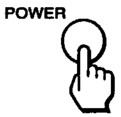
1-7. WATCHING TV PROGRAMS


TV • • CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
ANT/AUX
DISPLAY
JUMP
OFF
PIP CH
PIP
ENTER
CODE SET
MEMO DISPLAY
DIGITAL MEMO
VOL
CH
MENU
Outer panel

Make sure that the TV/CABLE BOX selector on the Remote Commander is set to TV, in order to control the projection TV with the Remote Commander.

1

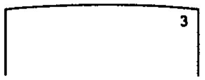
Press POWER to turn on the projection TV.
TIMER/STAND BY indicator blinks until the picture appears.



2

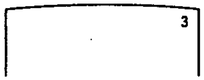
Set the cable connection on or off (pp. 28 – 29) to select the type of channel you want to watch, VHF/UHF or cable TV.

To watch VHF or UHF channels

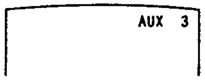


To watch cable TV channels

Press ANT/AUX to select the type of channel you want to watch, VHF/UHF/ regular cable TV, or pay cable TV connected to the AUX (auxiliary) terminal.



To watch VHF, UHF or regular cable TV channels

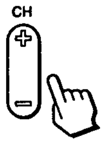


To watch pay cable TV channels

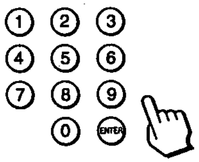
3

Select a channel in one of the following two ways:

To scan the preset channels in numerical sequence, press CH +/–.

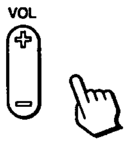


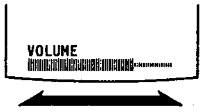
To select a channel directly, press 0 – 9 and then ENTER.
For example, to select channel 10, press 1, 0 and ENTER.


1
2
3
4
5
6
7
8
9
0
ENTER

4

Press VOL +/– to adjust the volume.





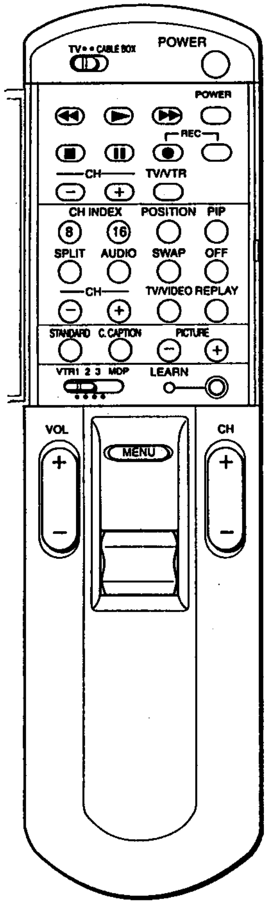
Press + to increase the volume.
Press – to decrease the volume.

If VIDEO 1, VIDEO 2 or VIDEO 3 appears on the screen
Press TV/VIDEO until a TV channel number appears.

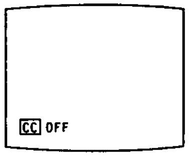
To select channels more easily
Set FAVORITE CHANNEL (pp. 72 – 73).

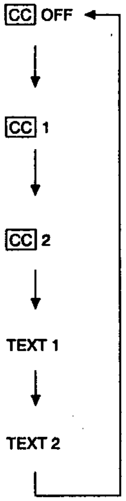
To turn off the projection TV
Press POWER.

1-8. USING CLOSED CAPTION


TV • • CABLE BOX
POWER
POWER
REC
CH
TV/VTR
CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO REPLAY
STANDARD
C.CAPTION
PICTURE
VTR1 2 3 MDP
LEARN
VOL
MENU
CH

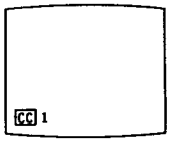
1 Press C.CAPTION.
The closed caption mode appears. CC1, CC2, TEXT1, TEXT2 or CC OFF appears in sequence each time you press C.CAPTION.



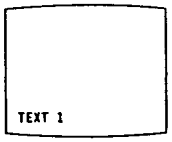

CC OFF
CC 1
CC 2
TEXT 1
TEXT 2

2 Press C.CAPTION repeatedly.

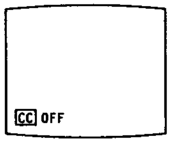
Select CC1 or CC2 to view Captions.
A Caption is a printed version of the dialogue or sound effects of a program. (The mode should be set to CC1 for most programs.)



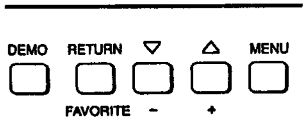
Select TEXT1 or TEXT2 to view Text.
Text is information that is presented using the half to full television screen. It is usually not related to the program.



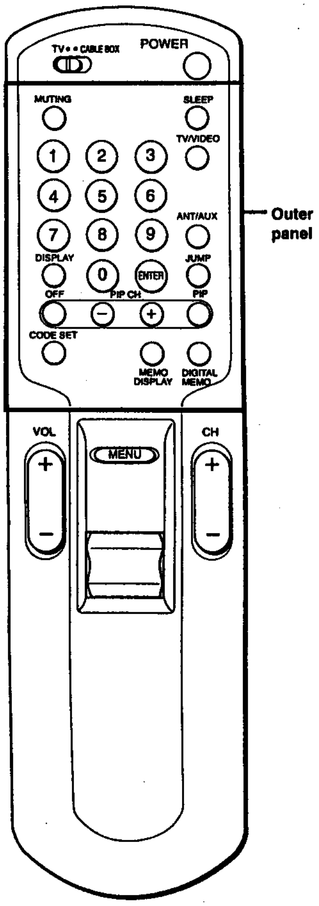
Select CC OFF if you don't want to view Closed Caption nor Text.



1-9. USING CONVENIENT FEATURES


DEMO
RETURN
▽
△
MENU
FAVORITE
-
+

Front inner panel


TV• • CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
7
8
9
0
ANT/AUX
DISPLAY
JUMP
ENTER
OFF
PIP CH
PIP
−
+
CODE SET
MEMO DISPLAY
DIGITAL MEMO
VOL
CH
MENU
+
−
+
−
Outer panel

Muting the sound — MUTING

Press MUTING.
"MUTING" appears on the screen.

To restore the sound
Press MUTING again, or press VOL +.

Keeping the displays on-screen — DISPLAY

Press DISPLAY.
All the existing displays appear: channel number, channel caption (if set), MTS mode ("SAP" only), window picture input mode, and the current time ("AM" or "PM" disappears after about three seconds).

To turn off the displays
Press DISPLAY again.

Setting the sleep timer — SLEEP

The sleep timer turns off the projection TV automatically after the amount of time you select.

Press SLEEP.
Each time you press SLEEP, the time increments "30," "60," "90" and "OFF" mode appear in sequence.

SLEEP 30

SLEEP 60

SLEEP 90

SLEEP OFF

A red "SLEEP" display appears about one minute before the projection TV goes off.

To cancel the setting.
Press SLEEP until OFF mode appears.
A green "SLEEP OFF" display appears for about three seconds.
OR
Turn the projection TV off.
The sleep timer setting is cancelled.

Switching quickly between two channels — JUMP

Use this function to keep track of two programs alternately.

To recall the channel you were watching previously
Press JUMP.

To switch back to the first channel
Press JUMP again.

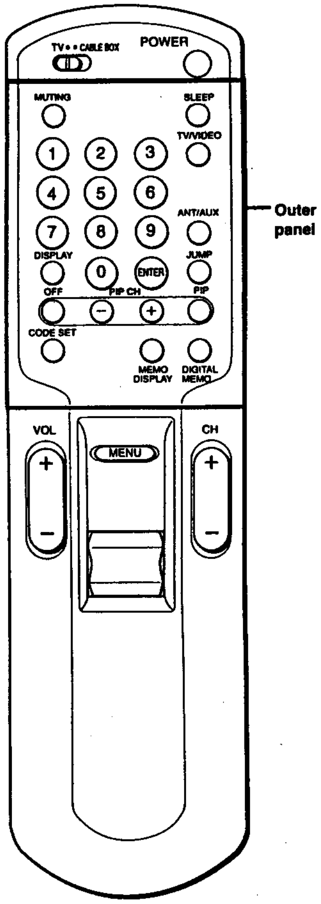
Note
The JUMP function also changes the mode to ANT (antenna) or AUX (auxiliary), depending on the mode of the channel you were watching previously.

Previewing the features — DEMO

Press DEMO (front inner panel).
Functions and menus are displayed one by one.

To restart DEMO from the beginning
Press DEMO again.

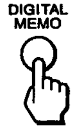
To stop DEMO
Press any button.


TV•• CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
0
ENTER
JUMP
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
VOL
MENU
CH
Outer panel

Storing an image in memory – DIGITAL MEMO

Use this feature to store and recall a recipe from a cooking program, a displayed address or phone number and so on.

1 Press DIGITAL MEMO.
The displayed image is stored in memory, and the image remains still on the screen.


DIGITAL MEMO

2 Press MEMO DISPLAY.
The projection TV returns to normal viewing mode.

MEMO DISPLAY

To recall the stored image

Press MEMO DISPLAY.

MEMO DISPLAY

The stored picture is retained in memory until:
- you turn off the projection TV.
- you press OFF (in the PIP section) twice.
- you store a different image.

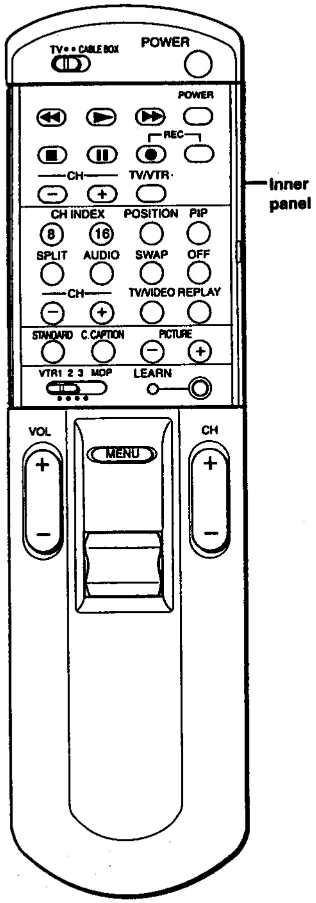
To return to the normal screen
Press MEMO DISPLAY again.

Note
You cannot display a window picture (pp. 45 – 49) while viewing a DIGITAL MEMO screen.

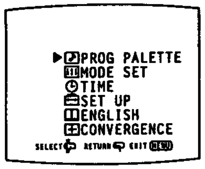
1-10. SELECTING A PICTURE AND SOUND MODE

This projection TV features six modes (STANDARD, MOVIE, SPORTS, NEWS, MUSIC, GAME) that offer different picture and sound qualities. Choose the one that best suits the type of program that you want to watch.

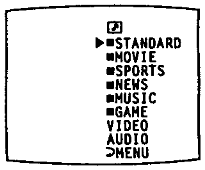
Example: Select MOVIE mode for picture and sound that gives you the sense of being in a movie theater.


TV•• CABLE BOX
POWER
POWER
REC
CH
TV/VTR·
CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO REPLAY
STANDARD
C.CAPTION
PICTURE
VTR1 2 3 MDP
LEARN
VOL
MENU
CH
Inner panel

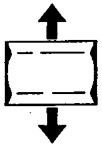
1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

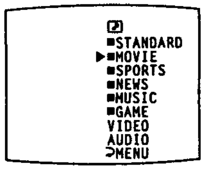

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Click the rocker control.
The program palette menu appears.

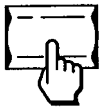

▶■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
MENU

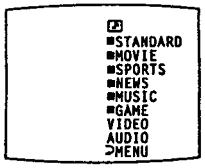
3 Press the rocker control up or down until the cursor points to "MOVIE."




■STANDARD
▶■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
MENU

4 Click the rocker control.
The "MOVIE" display turns green, indicating that MOVIE mode is selected.




■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
MENU

To select a different mode
Repeat steps 3 – 4.

Selecting standard mode (without using the menus)

Follow these instructions to select standard mode without using the on-screen menus.

Press STANDARD.

When you select STANDARD mode
You receive standard picture and sound quality. Any video or audio adjustments you made ("Adjusting the Picture" pp. 50 – 54; "Adjusting the Sound" pp. 55 – 60) are cancelled and the original factory settings are restored.

When you select MOVIE mode
You receive a finely detailed picture, and a theatrical audio effect.
To further adjust picture and sound qualities, follow the instructions on pp. 50 – 54 and pp. 55 – 60, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 55 – 56).

When you select SPORTS mode
You receive a vivid, bright picture, and sound with a sports stadium effect.
To further adjust picture and sound qualities, follow the instructions on pp. 50 – 54 and pp. 55 – 60, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 55 – 56).

When you select NEWS mode
Picture noise is reduced, and you receive clear voice reproduction.
To further adjust picture and sound qualities, follow the instructions on pp. 50 – 54 and pp. 55 – 60, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 55 – 56).

When you select MUSIC mode
You receive a warmer picture, and live concert effect sound.
To further adjust picture and sound qualities, follow the instructions on pp. 50 – 54 and pp. 55 – 60, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 55 – 56).

When you select GAME mode
The picture is easier on your eyes, and sound has a surround effect.
To further-adjust picture and sound qualities, follow the instructions on pp. 50 – 54 and pp. 55 – 60, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 55 – 56).

Caution
Leaving a fixed pattern on the screen for long periods of time, when operating a video game or personal computer, may damage the picture tube. To avoid this, keep the picture contrast and the brightness levels low (PICTURE and BRIGHT adjustment, pp. 50 – 51).

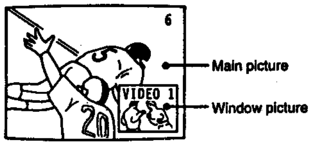
To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

1-11. WATCHING TWO OR MORE PICTURES AT ONCE (PIP)

You can watch both the main picture and one or more window pictures simultaneously, using the Picture-in-Picture (PIP) function.



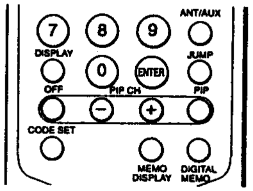
Picture-in-Picture special features
When watching the main picture and a window picture, you can:
- Choose the sound from the main or window picture (AUDIO).
- Change the position of the window picture (POSITION).
- Swap the main and window pictures (SWAP).
- Replay the main picture as a window picture (REPLAY).
- Split the screen, with the main picture on one side and the window picture on the other side (SPLIT).
- Display 8 or 16 TV channels simultaneously (CH INDEX 8/16).

Notes
- You can also use the CH +/– buttons on the Remote Commander's inner panel.
- The video label and channel caption will not appear with the window picture even if you have set them.
- If you select a blocked channel in the window picture, the display "BLOCKED" appears with the window picture. (See "Setting CHANNEL BLOCK," pp. 70 – 71.)
- If you display a DIGITAL MEMO screen (p. 42), the window picture disappears.

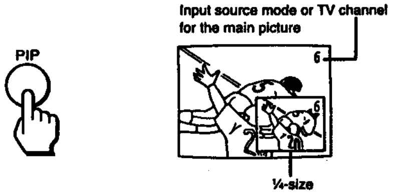
Displaying a window picture

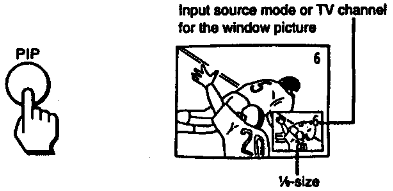
To turn PIP mode on or off, or to change TV channels, you can use the PIP buttons on the Remote Commander's outer panel. For other PIP functions, use the inner panel controls, which also include the PIP, OFF and CH +/– buttons.

Remote Commander (Outer panel)



Press PIP to display a window picture





A window picture appears in the last mode you watched.
Each time you press PIP, a 1/4 or 1/9 size window picture appears alternately.

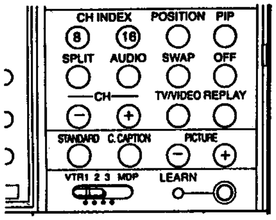
To turn PIP function off
Press OFF.
The window picture disappears.

To change TV channels in the window picture
Press TV/VIDEO to select TV mode; then press CH +/– in the PIP control area.

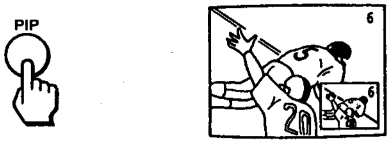
Changing the window picture input mode

Follow these instructions to select the input mode (TV/ VIDEO 1, VIDEO 2, VIDEO 3) for the window picture.

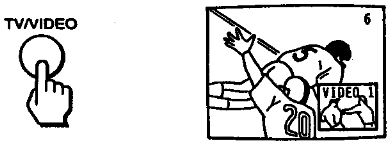
Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO REPLAY
STANDARD
C.CAPTION
PICTURE
VTR1 2 3 MDP
LEARN

1 Press PIP to display a window picture.



2 Press TV/VIDEO to select the input mode.
Each time you press TV/VIDEO, "TV," "VIDEO 1," "VIDEO 2" and "VIDEO 3" appear in sequence.


TV/VIDEO
6
VIDEO 1

To receive the window picture sound
Press AUDIO.

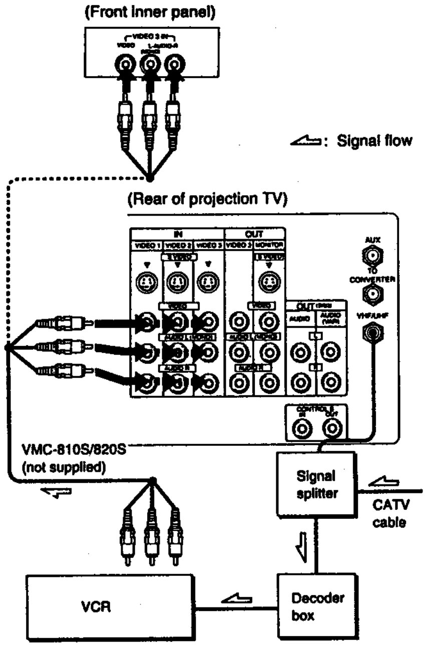
The ♪ display appears for a few seconds, indicating that the window picture sound is being received.

To restore the main picture sound
Press AUDIO again.

Note
The window picture sound is also output from the AUDIO (VAR) OUT jacks. The AUDIO OUT and MONITOR OUT jacks output the main picture sound only.

Displaying CATV input as a window picture

To use Picture-in-Picture with pay cable TV input, make the connections to your cable converter box as shown below.


(Front inner panel)
VIDEO 3 IN
VIDEO
L-AUDIO-R
: Signal flow
(Rear of projection TV)
IN
OUT
VIDEO 1
VIDEO 2
VIDEO 3
MONITOR
S VIDEO
VIDEO
AUDIO
AUX
TO CONVERTER
VHF/UHF
CONTROL S
VMC-810S/820S
(not supplied)
Signal splitter
CATV cable
VCR
Decoder box

After making the above connections, turn the cable connection on by following the steps on pp. 28 – 29; then continue with the steps below.

1–2 Follow steps 1 – 2 in "Changing the window picture input mode" on this page to select the video input mode for your connected VCR.

3 Put your VCR on an inactive channel (channel 3 or 4).

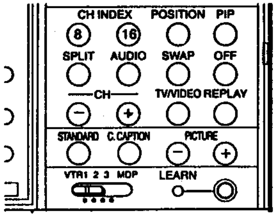
4 Change pay cable TV channels with the decoder box.

To control your cable converter box with the supplied Remote Commander
See p. 78.

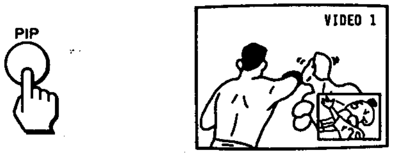
Changing the position of the window picture

Follow these instructions to change the position of the window picture on the screen.

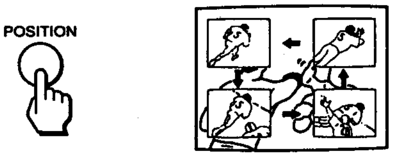
Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO REPLAY
STANDARD
C.CAPTION
PICTURE
VTR1 2 3 MDP
LEARN

1 Press PIP to display a window picture.



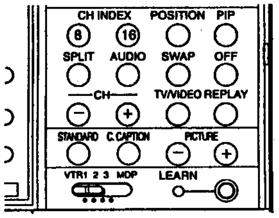
2 Press POSITION.
Each time you press POSITION, the window picture moves as illustrated.



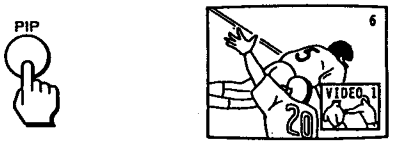
Swapping the main and window pictures

Follow these instructions to swap the input signals of the main and window pictures.

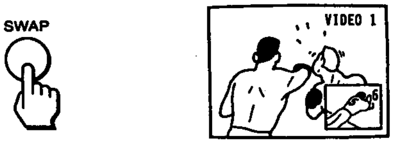
Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO REPLAY
STANDARD
C.CAPTION
PICTURE
VTR1 2 3 MDP
LEARN

1 Press PIP to display a window picture.


PIP
6
VIDEO 1

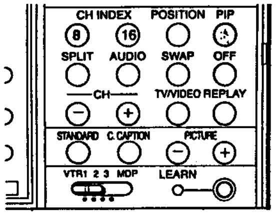
2 Press SWAP.
Each time you press SWAP, the images from the main and window pictures switch places.


SWAP
VIDEO 1
6

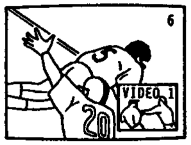
Displaying 8 TV channels at once – CH INDEX 8

Follow these instructions to display the main picture and 7 window pictures at once.

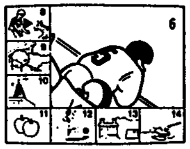
Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO REPLAY
STANDARD
C.CAPTION
PICTURE
VTR1 2 3 MDP
LEARN

1 Press PIP to display a window picture.



2 Press CH INDEX 8 to display seven window pictures.
Seven TV channels appear in numerical sequence, as window pictures.

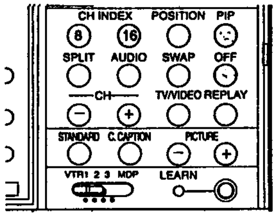

6
8
9
10
11
12
13
14

Each time you press CH INDEX 8, the next seven sequential channels appear (the main picture does not change).

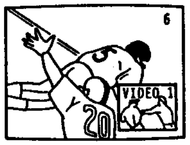
To return to the normal screen
Press OFF.

Displaying 16 TV channels at once – CH INDEX 16

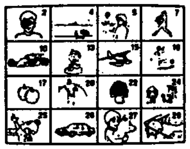
Follow these instructions to display 16 window pictures at once.
Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO REPLAY
STANDARD
C.CAPTION
PICTURE
VTR1 2 3 MDP
LEARN

1 Press PIP to display a window picture.



2 Press CH INDEX 16 to display 16 window pictures.
16 TV channels appear in numerical sequence, as window pictures.



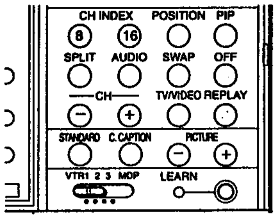
Each time you press CH INDEX 16, the next 16 sequential channels appear (the main picture does not change).

To return to the normal screen
Press OFF.

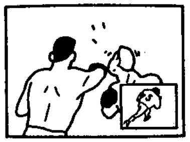
Replaying the main picture as a window picture

Follow these instructions to replay the image that appeared in the main picture two seconds before, as a window picture.

Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO REPLAY
STANDARD
C.CAPTION
PICTURE
VTR1 2 3 MDP
LEARN

Press REPLAY.

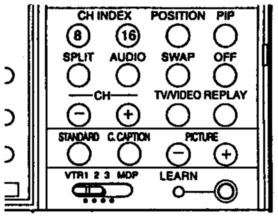


To return to the normal screen
Press OFF.

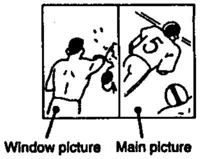
Splitting the screen

Follow these instructions to split the screen, with the window picture on the left, and the main picture on the right.

Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO REPLAY
STANDARD
C.CAPTION
PICTURE
VTR1 2 3 MDP
LEARN

Press SPLIT.


Window picture
Main picture

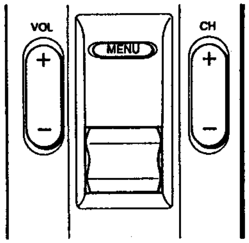
To return to the normal screen
Press OFF.

Note
When using SPLIT, vertical lines may appear elongated.

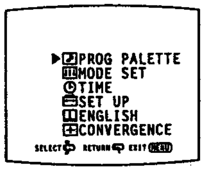
Setting the TRINITONE mode

Color picture tubes are usually manufactured with a fixed color temperature (tint) that determines the "warmth" (red tint) or "coolness" (blue tint) of the picture. Use the Sony Trinitone feature to adjust the picture color to your preference.

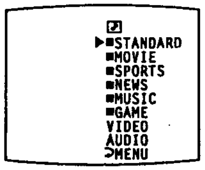
Remote Commander



1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

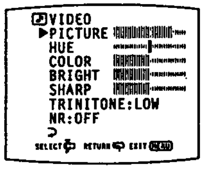

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Click the rocker control.
The program palette menu appears.


▶■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
⊃MENU

3 Press the rocker control up or down until the cursor points to "VIDEO."

4 Click the rocker control.
The VIDEO screen appears.


VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
⊃
SELECT RETURN EXIT MENU

5 Press the rocker control up or down until the cursor points to "TRINITONE."

6 Click the rocker control.
The mode display turns red.

7 Press the rocker control up or down to select "HIGH" or "LOW."

Select "HIGH" to make the picture cool (bluish).
Select "LOW" to make the picture warm (reddish).

8 Click the rocker control.
The setting is complete.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

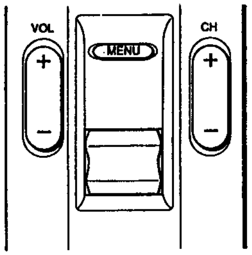
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

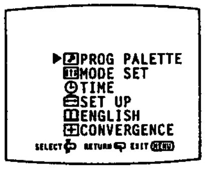
Setting NR (picture noise reduction) ON or OFF

Follow these instructions to reduce picture noise.

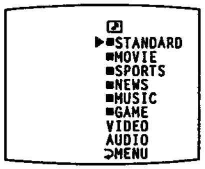
Remote Commander



1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

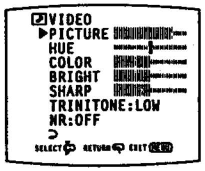

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Click the rocker control.
The program palette menu appears.

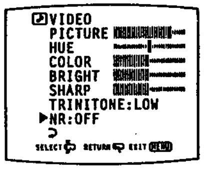

▶■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
⊃MENU

3 Press the rocker control up or down until the cursor points to "VIDEO."

4 Click the rocker control.
The VIDEO screen appears.


VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
⊃
SELECT RETURN EXIT MENU

5 Press the rocker control up or down until the cursor points to "NR."


VIDEO
PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
▶NR:OFF
⊃
SELECT RETURN EXIT MENU

6 Click the rocker control.
The mode display turns red.

7 Press the rocker control up or down to select "ON" or "OFF."

Select "ON" to reduce picture noise.
Select "OFF" to restore the normal picture.

8 Click the rocker control.
The setting is complete.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

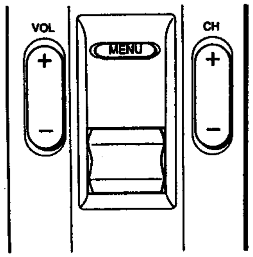
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

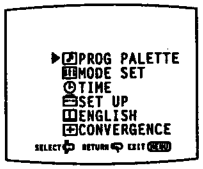
Setting S-VIDEO ON or OFF

Follow these instructions to set S-VIDEO on or off, depending on the kind of video equipment you have connected to the projection TV. For instructions on connecting video equipment, see pp. 15 – 18.

Remote Commander (Outer panel)

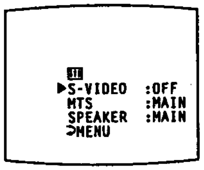


1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Press the rocker control up or down until the cursor points to "MODE SET."

3 Click the rocker control.
The mode set menu appears, with the cursor pointing to "S-VIDEO."


▶S-VIDEO :OFF
MTS :MAIN
SPEAKER :MAIN
MENU

4 Click the rocker control.
The mode display turns red.

5 Press the rocker control up or down to select "ON" or "OFF."

6 Click the rocker control.
The setting is complete.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

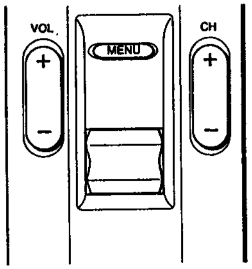
1-13. ADJUSTING THE SOUND

Selecting a sound mode

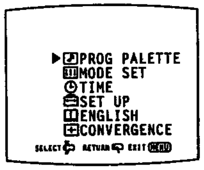
Use the DSP (Digital Sound Processor) menu to select the sound mode that best suits the type of sound you are listening to.

Example: Select JAZZ CLUB mode to enhance the effect when viewing a musical performance.

Remote Commander

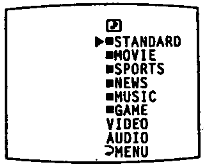


1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

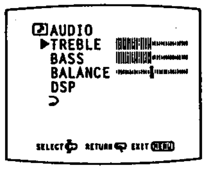
2 Press the rocker control up or down until the cursor points to "PROG PALETTE."

3 Click the rocker control.
The program palette menu appears.


▶■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
MENU

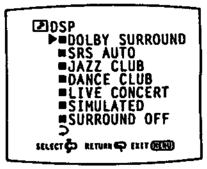
4 Press the rocker control up or down until the cursor points to "AUDIO."

5 Click the rocker control.
The AUDIO screen appears.


AUDIO
▶TREBLE
BASS
BALANCE
DSP
SELECT RETURN EXIT MENU

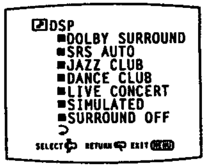
6 Press the rocker control up or down until the cursor points to "DSP."

7 Click the rocker control
The DSP menu appears.


DSP
▶■DOLBY SURROUND
■SRS AUTO
■JAZZ CLUB
■DANCE CLUB
■LIVE CONCERT
■SIMULATED
■SURROUND OFF
SELECT RETURN EXIT MENU

8 Press the rocker control up or down until the cursor points to "JAZZ CLUB."

9 Click the rocker control.
JAZZ CLUB mode is selected.


DSP
■DOLBY SURROUND
■SRS AUTO
■JAZZ CLUB
■DANCE CLUB
■LIVE CONCERT
■SIMULATED
■SURROUND OFF
SELECT RETURN EXIT MENU

To select a different mode
Repeat steps 8 – 9. (See the next page for the different modes you can choose.)

To further adjust the sound
Follow the instructions on pp. 57 – 58.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

When you select DOLBY SURROUND• mode
You receive wraparound sound with three-dimensional audio depth and presence when you connect main speakers and optional rear speakers.

Note
You must set REAR SPEAKER to "YES" (p. 60), or the display is blacked out and cannot be selected.
When using rear speakers, control the volume with the REAR VOLUME adjustment screen.

When you select SRS AUTO mode
You receive powerfully realistic sound that recaptures audio "clues" originally present but masked in the recording process, so that the action seems to happen all around you.

When you select JAZZ CLUB mode
You receive sound that gives a sense of space, with a touch of echo added.

When you select DANCE CLUB mode
You receive the sound effect of the hard floor and wall environment of a dance club.

When you select LIVE CONCERT mode
You receive sound that simulates the effect of being present at a live concert.

When you select SIMULATED mode
You receive monaural sound with a surround-like effect.

When you select SURROUND OFF mode
You receive sound without a surround effect.

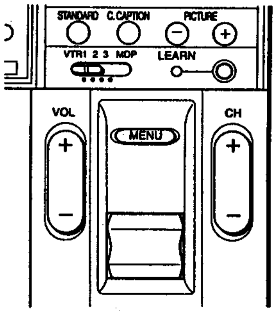
To further adjust sound qualities
Follow the instructions on pp. 57 – 58.

- Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792 and 3,959,590. "Dolby" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

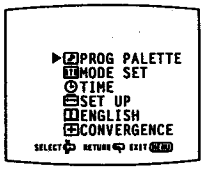
Adjusting sound quality

Follow these instructions to adjust the TREBLE, BASS and BALANCE.

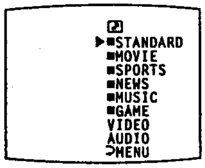
Remote Commander (inner panel)



1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

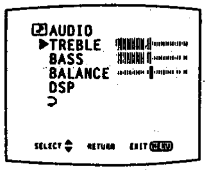


2 Click the rocker control.
The program palette menu appears.



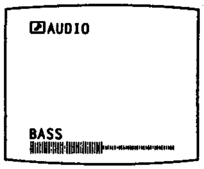
3 Press the rocker control up or down until the cursor points to "AUDIO."

4 Click the rocker control.
The AUDIO screen appears.



5 Press the rocker control up or down until the cursor points to the item you want to adjust.

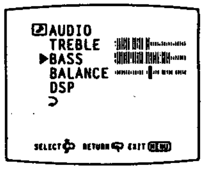
6 Click the rocker control.
The adjustment screen appears.



7 Press the rocker control up or down to make the adjustment.

Sound quality	Press the rocker control down	Press the rocker control up
TREBLE	To decrease the treble response	To increase the treble response
BASS	To decrease the bass response	To increase the bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

8 Click the rocker control.
The adjustment is complete, and the AUDIO screen automatically reappears.



To adjust other items
Repeat steps 5 – 9.

To restore the factory settings for all the items
Select "STANDARD" on the program palette menu, and click the rocker control; or, press STANDARD on the Remote Commander.
All the items return to their original factory settings.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU." Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

Selecting an MTS (Multichannel TV Sound) mode

Follow these instructions to select an MTS mode.

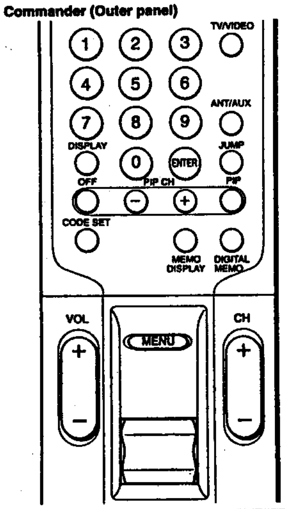
Select MAIN mode to listen to stereo sound.
The STEREO lamp on the projection TV lights up whenever a stereo broadcast is received.

Select SAP mode to listen to Second Audio Programs.

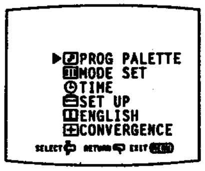
Select MONO mode to eliminate excessive noise during stereo broadcasts, caused by a weak incoming signal.

Note
If the projection TV is in video mode, the "MTS" display is shaded and cannot be selected.
Press TV/VIDEO on the projection TV or on the Remote Commander to change to TV mode.

Remote Commander (Outer panel)

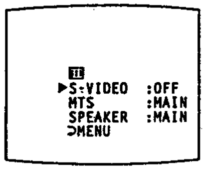

TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
JUMP
OFF
0
ENTER
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
VOL
MENU
CH
+
–
+
–

1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT

2 Press the rocker control up or down until the cursor points to "MODE SET."

3 Click the rocker control.
The mode set menu appears.


▶S-VIDEO :OFF
MTS :MAIN
SPEAKER :MAIN
⊃MENU

4 Press the rocker control up or down until the cursor points to "MTS."

5 Click the rocker control.
The mode display turns red.

6 Press the rocker control up or down to select the mode you want.
Each time you press the rocker control up or down, "MAIN," "SAP" and "MONO" appear in sequence.

7 Click the rocker control.
The mode is selected.

To return to the previous menu
Press the rocker control up or down until the cursor points to "⊃ MENU." Then click the rocker control.

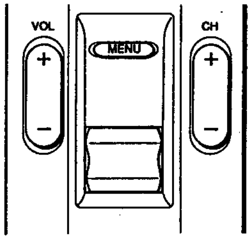
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

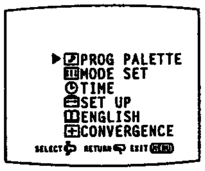
Setting SPEAKER — MAIN or CENTER

Follow these instructions to set SPEAKER to "CENTER" when you connect an audio system (p.19), and to "MAIN" when you want to listen to the sound from the projection TV speakers.

Remote Commander

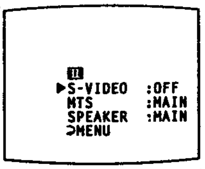


1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT

2 Press the rocker control up or down until the cursor points to "MODE SET."

3 Click the rocker control.
The mode set menu appears.


▶S-VIDEO :OFF
MTS :MAIN
SPEAKER :MAIN
⊃MENU

4 Press the rocker control up or down until the cursor points to "MAIN SPEAKER."

5 Click the rocker control.
.The mode display turns red.

6 Press the rocker control up or down to select "MAIN" or "CENTER."

7 Click the rocker control.
The setting is complete.

To return to the previous menu
Press the rocker control up or down until the cursor points to "⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

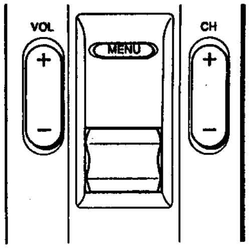
To return to the normal screen
Press MENU on the Remote Commander.

1-14. CUSTOMIZING THE SCREEN DISPLAY

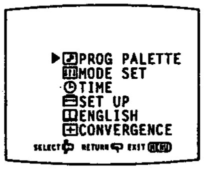
Setting REAR SPEAKER

Set REAR SPEAKER to "YES" to use optional speakers as rear speakers (p. 21).

Remote Commander

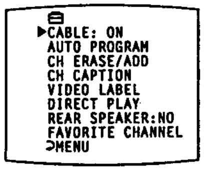


1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE

2 Press the rocker control up or down until the cursor points to "SET UP."

3 Click the rocker control.
The set up menu appears.

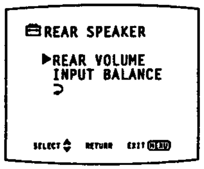

▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

4 Press the rocker control up or down until the cursor points to "REAR SPEAKER."

5 Click the rocker control.
The mode display turns red.

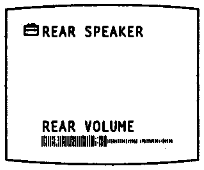
6 Press the rocker control up or down to select "YES."

7 Click the rocker control.
The REAR SPEAKER screen appears.


REAR SPEAKER
▶REAR VOLUME
INPUT BALANCE
⊃

8 Press the rocker control up or down until the cursor points to the item you want to adjust.

9 Click the rocker control.
The adjustment screen appears.


REAR SPEAKER
REAR VOLUME

10 Use the rocker control to make the adjustment.

REAR VOLUME	Press the rocker control down to decrease the rear speaker volume. Press the rocker control up to increase the rear speaker volume.
INPUT BALANCE	Press the rocker control down to improve the input balance. (Set to the lowest point for best input balance.)

Notes
- Setting REAR SPEAKER to "NO" does not turn off the rear speaker sound. Control the rear speaker volume with the REAR VOLUME adjustment.
- While the INPUT BALANCE adjustment screen is displayed, the sound from the front speakers is cut off.

11 Click the rocker control.
The setting is complete.

To set REAR SPEAKER to "NO"
Repeat steps 1 – 11, and select "NO" in step 6.

To return to the previous menu
Press the rocker control up or down until the cursor points to "⊃ MENU." Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

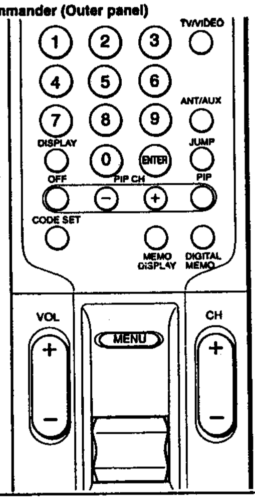
To return to the normal screen
Press MENU on the Remote Commander.

Setting channel captions — CH CAPTION

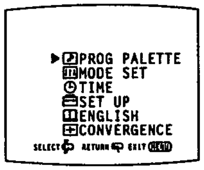
Follow these instructions to caption each channel number display with a name, for instance, the television station call letters. (You can set up to four letters or numbers).

Example: Caption channel 15 as "NBC."

Remote Commander (Outer panel)

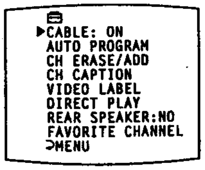


1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE

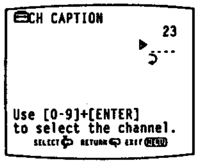
2 Press the rocker control up or down until the cursor points to "SET UP."

3 Click the rocker control.
The set up menu appears.

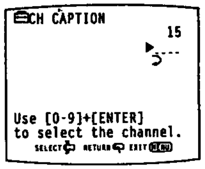

▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

4 Press the rocker control up or down until the cursor points to "CH CAPTION."

5 Click the rocker control.
The CH CAPTION screen appears.

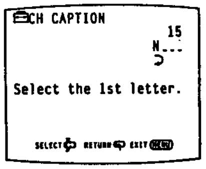

CH CAPTION
23
▶_ _ _ _
⊃
Use [0-9]+[ENTER]
to select the channel.

6 Press CH +/–, or press 1, 5 and ENTER to set channel "15."


CH CAPTION
15
▶_ _ _ _
⊃
Use [0-9]+[ENTER]
to select the channel.

7 Click the rocker control.
The first caption space turns red.

8 Press the rocker control up or down to select "N."
Each time you press the rocker control up or down, "0" – "9," "A" – "Z," "&," "/," "-" and "_" (blank space) appear in sequence.


CH CAPTION
15
N_ _ _
⊃
Select the 1st letter.

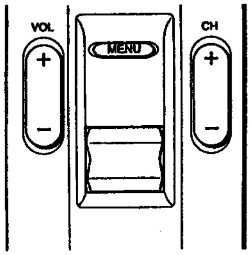
9 Click the rocker control.
The second caption space turns red.

(Continued)

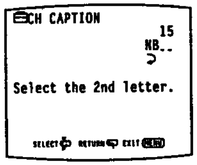
Setting channel captions – CH CAPTION

(Cont'd. from prev. page)

Remote Commander



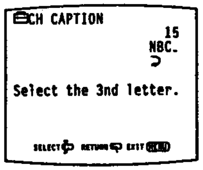
10 Press the rocker control up or down to select "B."


CH CAPTION
15
NB..
SELECT RETURN EXIT MENU

Select the 2nd letter.

11 Click the rocker control.
The third caption space turns red.

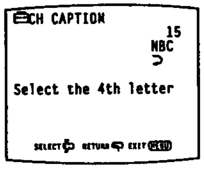
12 Press the rocker control up or down to select "C."


CH CAPTION
15
NBC.
SELECT RETURN EXIT MENU

Select the 3nd letter.

13 Click the rocker control.
The fourth caption space turns red.

14 Press the rocker control up or down to select a blank space.


CH CAPTION
15
NBC
SELECT RETURN EXIT MENU

Select the 4th letter

15 Click the rocker control.
The setting is complete.
When you select or display the channel number, the channel caption also appears.

To caption more channels
Repeat steps 6 – 15.

To erase unnecessary captions
Display the CH CAPTION screen, select the channel with the caption you want to erase, and select blank spaces for the channel caption; then click the rocker control.
The caption for that channel is erased.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

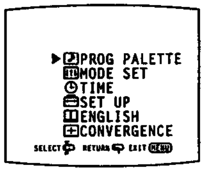
Note
You can set up to 32 channel captions. If the memory is full, "The memory is full, sorry" appears on the screen. Erase any unnecessary captions, and begin again.

Setting VIDEO LABEL

Follow these instructions to label each input mode, in order to identify the equipment connected to each input terminal.

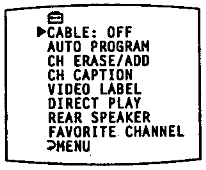
Example: Label VIDEO 1 IN as "VHS."

1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

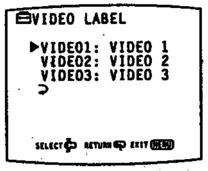
2 Press the rocker control up or down until the cursor points to "SET UP."

3 Click the rocker control.
The set up menu appears.


▶CABLE: OFF
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER
FAVORITE CHANNEL
⊃MENU

4 Press the rocker control up or down until the cursor points to "VIDEO LABEL."

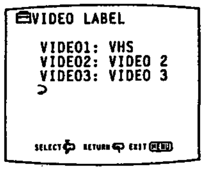
5 Click the rocker control.
The VIDEO LABEL screen appears.


VIDEO LABEL
▶VIDEO1: VIDEO 1
VIDEO2: VIDEO 2
VIDEO3: VIDEO 3
⊃
SELECT RETURN EXIT MENU

6 Press the rocker control up or down until the cursor points to the input mode you want to label. (In this case, the cursor is already pointing to "VIDEO 1.")

7 Click the rocker control.
The label display turns red.

8 Press the rocker control up or down to select "VHS."


VIDEO LABEL
VIDEO1: VHS
VIDEO2: VIDEO 2
VIDEO3: VIDEO 3
⊃
SELECT RETURN EXIT MENU

Each time you press the rocker control up or down, the label changes:

VIDEO 1 → BETA → 8mm → VHS → LD → S-VIDEO

9 Click the rocker control.
The setting is complete.
When you select or display the video mode, the video label appears.

To label other input modes
Repeat steps 6 – 9.

To change a label
Same as above.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU." Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

1-15. USING TIMER-ACTIVATED FUNCTIONS

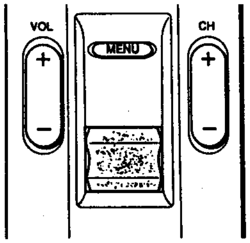
Setting DAYLIGHT SAVING

If you live in an area that uses daylight savings time, set DAYLIGHT SAVING to "YES" or "NO" depending on the season, before setting the current time. At the next daylight savings date, you will be able to automatically adjust all the time-related settings (CURRENT TIME, ON/OFF TIMER and CHANNEL BLOCK) simply by changing the DAYLIGHT SAVING setting.

When setting DAYLIGHT SAVING:

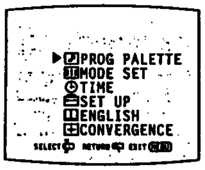
- **After the first Sunday in April (spring daylight savings)**
  Set to "YES" before setting the current time.
  Then, on the last Sunday in October (fall daylight savings), set to "NO."
  All the time-related settings automatically move one hour back.
- **After the last Sunday in October (fall daylight savings)**
  Set to "NO" before setting the current time.
  Then, on the first Sunday in April (spring daylight savings), set to "YES."
  All the time-related settings automatically move one hour ahead.

Remote Commander



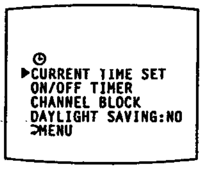
Follow these instructions to set DAYLIGHT SAVING to "YES" or "NO."

1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Press the rocker control up or down until the cursor points to "TIME."

3 Click the rocker control.
The time menu appears.


▶CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
⊃MENU

4 Press the rocker control up or down until the cursor points to "DAYLIGHT SAVING."

5 Click the rocker control.
The mode display turns red.

6 Press the rocker control up or down to select "YES" or "NO."
The setting is complete.

7 Click the rocker control.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

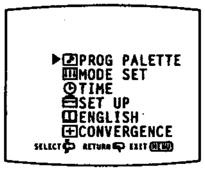
To return to the normal screen.
Press MENU on the Remote Commander.

Setting the clock — CURRENT TIME SET

Follow these instructions to set the current time. The correct current time must be set in order to use the other time-related functions (DAYLIGHT SAVING, ON/OFF TIMER, CHANNEL BLOCK).

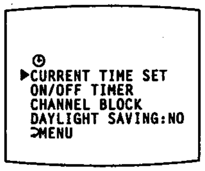
Example: Set the time to 3:15 PM, Monday.

1 Press MENU.
The main menu appears.

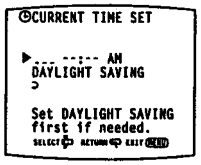

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Press the rocker control up or down until the cursor points to "TIME."

3 Click the rocker control.
The time menu appears, and the cursor points to "CURRENT TIME SET."


▶CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
⊃MENU

4 Click the rocker control again.
The CURRENT TIME SET screen appears, with a reminder to set DAYLIGHT SAVING.


CURRENT TIME SET
▶--- --:-- AM
DAYLIGHT SAVING
⊃
SELECT RETURN EXIT MENU

Set DAYLIGHT SAVING first if needed.

If you do not need to set DAYLIGHT SAVING, click the rocker control and continue from step 5.

To set daylight saving

a Press the rocker control up or down until the cursor points to "DAYLIGHT SAVING."

b Click the rocker control.
The time menu appears, and the cursor points to "DAYLIGHT SAVING."

c Click the rocker control.

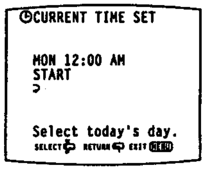
d Press the rocker control up or down to select "YES" or "NO."

e Click the rocker control.
The setting is complete.

To set the time
Press the rocker control up or down until the cursor points to "CURRENT TIME SET"; click the rocker control, then continue from step 5.

5 Click the rocker control.
The CURRENT TIME SET screen appears, and the "SUN" display appears (red).

6 Press the rocker control up or down to select "MON."
Each time you press the rocker control up or down, the day changes consecutively.


CURRENT TIME SET
MON 12:00 AM
START
⊃
SELECT RETURN EXIT MENU

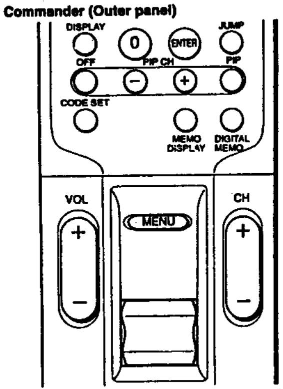
Select today's day.

(Continued)

Setting the clock — CURRENT TIME SET

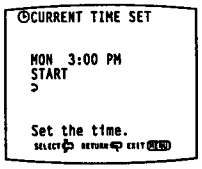
(Cont'd from prev. page)

Remote Commander (Outer panel)



7 Click the rocker control.
The hour and am/pm displays turn red.

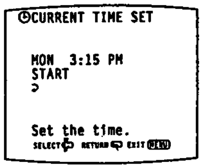
8 Press the rocker control up or down to set "3:00PM."
Each time you press the rocker control up or down, the hour changes in sequence beginning with "12:00AM."



```
CURRENT TIME SET

 MON  3:00 PM
 START
 ⊃

 Set the time.
```

9 Click the rocker control.
The minute display turns red.

10 Press the rocker control up or down to select "15" (minutes).
Each time you press the rocker control up or down, the minutes change in sequence.



```
CURRENT TIME SET

 MON  3:15 PM
 START
 ⊃

 Set the time.
```

11 Click the rocker control.
The cursor points to "START."

12 Check the actual time, and click the rocker control to start the clock.
The setting is complete.

To reset the time
Display the CURRENT TIME SET screen and repeat steps 5 – 12.

To display the current time
Press DISPLAY.

To return to the previous menu
Press the rocker control up or down until the cursor points to "⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

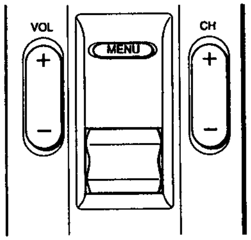
To return to the normal screen.
Press MENU on the Remote Commander.

Setting the ON/OFF TIMER

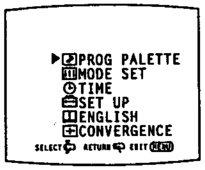
Follow these instructions to make the program of your choice appear on the screen at a specified time.

Example: Set the timer to turn on the projection TV every Monday through Friday at 1:30 AM for 3 hours, on channel 8, as PROGRAM 1. (You can set up to three programs.)

Remote Commander



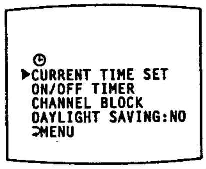
1 Press MENU.
The main menu appears.



```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
```

2 Press the rocker control up or down until the cursor points to "TIME."

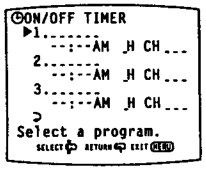
3 Click the rocker control.
The time menu appears.



```
▶CURRENT TIME SET
 ON/OFF TIMER
 CHANNEL BLOCK
 DAYLIGHT SAVING:NO
 ⊃MENU
```

4 Press the rocker control up or down until the cursor points to "ON/OFF TIMER."

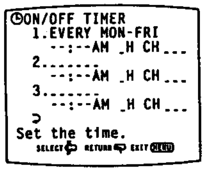
5 Click the rocker control.
The ON/OFF TIMER screen appears, and the cursor points to "1."



```
ON/OFF TIMER
▶1.-------
   --:--AM _H CH___
 2.-------
   --:--AM _H CH___
 3.-------
   --:--AM _H CH___
 ⊃
Select a program.
```

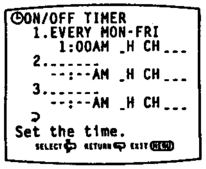
6 To set program 1, click the rocker control.
(To set program 2 or 3, press the rocker control up or down until the cursor points to that program; then click the rocker control.)
The day input space turns red.

7 Press the rocker control up or down to select "EVERY MON-FRI"; then click the rocker control.
Each time you press the rocker control up, the days of the week change as shown in Fig. 1 (p. 67).



```
ON/OFF TIMER
 1.EVERY MON-FRI
   --:--AM _H CH___
 2.-------
   --:--AM _H CH___
 3.-------
   --:--AM _H CH___
 ⊃
 Set the time.
```

8 Press the rocker control up or down to select "1:00AM"; then click the rocker control.
Each time you press the rocker control up or down, the hour changes in sequence.

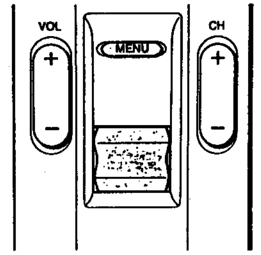


```
ON/OFF TIMER
 1.EVERY MON-FRI
     1:00AM _H CH___
 2.-------
   --:--AM _H CH___
 3.-------
   --:--AM _H CH___
 ⊃
 Set the time.
```

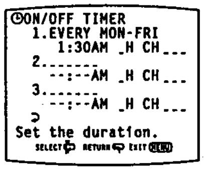
(Continued)

Setting the ON-OFF TIMER *(Cont'd from prev. page)*

Remote Commander

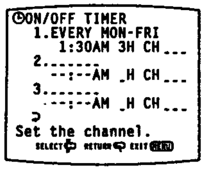


9 Press the rocker control up or down to select "30" (minutes);
Then click the rocker control.
Each time you press the rocker control up or down, the minutes change in sequence.



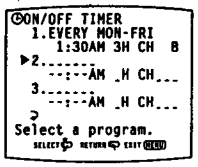
```
ON/OFF TIMER
  1.EVERY MON-FRI
     1:30AM _H CH___
  2._______
     --:--AM _H CH___
  3._______
     --:--AM _H CH___
  ⊃
 Set the duration.
```
SELECT RETURN EXIT MENU

10 Press the rocker control up or down to select "3" (hour duration); then click the rocker control.
Each time you press the rocker control up or down, the duration changes from "1" – "6" in sequence.



```
ON/OFF TIMER
  1.EVERY MON-FRI
     1:30AM 3H CH___
  2._______
     --:--AM _H CH___
  3._______
     --:--AM _H CH___
  ⊃
 Set the channel.
```
SELECT RETURN EXIT MENU

11 Press the rocker control up or down to select "8" (channel); then click the rocker control.
The TIMER/STAND BY indicator lights, indicating that the setting is complete.
Each time you press the rocker control up or down, the channel number changes from 1 – 125 in sequence.



```
ON/OFF TIMER
  1.EVERY MON-FRI
     1:30AM 3H CH  8
 ▶2._______
     --:--AM _H CH___
  3._______
     --:--AM _H CH___
  ⊃
 Select a program.
```
SELECT RETURN EXIT MENU

The display "TV WILL TURN OFF" appears on the screen one minute before the timer duration ends.

To set program 2 or 3.
Click the rocker control and repeat steps 6 – 11.

To erase an ON/OFF TIMER setting
Display the ON/OFF TIMER screen, select the setting you want to erase, and select the underlined spaces for the day setting.
The ON/OFF TIMER setting is erased.

To enter a new ON/OFF TIMER setting
Display the ON/OFF TIMER screen and repeat steps 6 – 11.

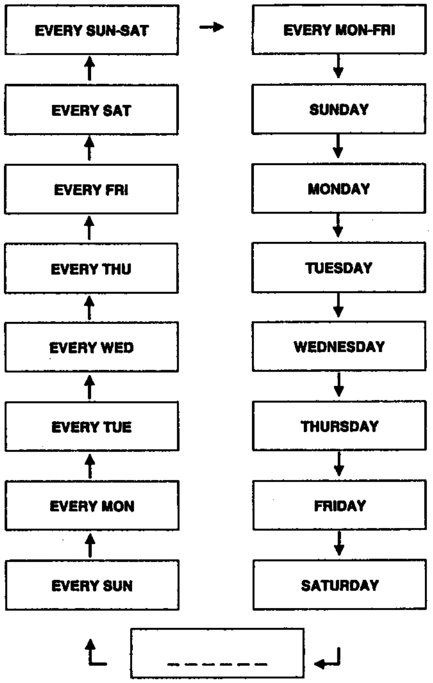
To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

Note
If you unplug the projection TV or a power failure occurs, both the clock and timer settings will be erased. Reset the current time; then set the timer.

Fig. 1
Selecting the day(s) of the week
When you press the rocker control up, the days of the week appear in the following order:


EVERY SUN-SAT
EVERY MON-FRI
SUNDAY
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY

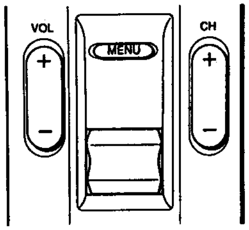
EVERY SUN
EVERY MON
EVERY TUE
EVERY WED
EVERY THU
EVERY FRI
EVERY SAT

Setting CHANNEL BLOCK

Follow these instructions to prevent a channel from appearing on the screen during the time that you specify. You can use this function to prevent children from watching unsuitable programs.

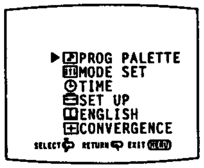
Example: Set CHANNEL BLOCK every Saturday at 4:30 PM for 1 hour, on Channel 12.

Remote Commander



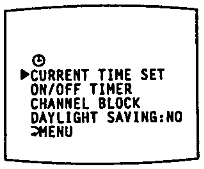
Note
If you have not set the current time, the "CHANNEL BLOCK" display is shaded and cannot be selected.

1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

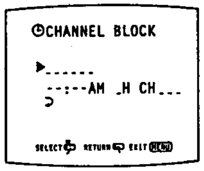
2 Press the rocker control up or down until the cursor points to "TIME."

3 Click the rocker control.
The time menu appears.

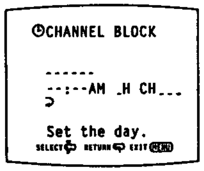

▶CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
⊃MENU

4 Press the rocker control up or down until the cursor points to "CHANNEL BLOCK."

5 Click the rocker control.
The CHANNEL BLOCK screen appears, and the cursor points to the day input space.

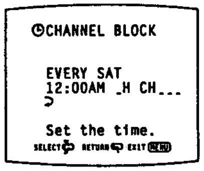

CHANNEL BLOCK
▶------
--:--AM _H CH___
⊃
SELECT RETURN EXIT MENU

6 Click the rocker control.
The day input space turns red.

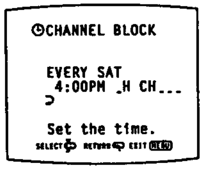

CHANNEL BLOCK

--:--AM _H CH___
⊃
Set the day.
SELECT RETURN EXIT MENU

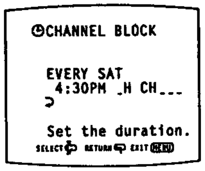
7 Press the rocker control up or down to select "EVERY SAT"; then click the rocker control.
Each time you press the rocker control up or down, the days of the week change as shown in Fig. 1 (p. 67).


CHANNEL BLOCK
EVERY SAT
12:00AM _H CH___
⊃
Set the time.
SELECT RETURN EXIT MENU

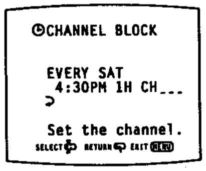
8 Press the rocker control up or down to select "4:00PM"; then click the rocker control.
Each time you press the rocker control up or down, the hour changes in sequence.


CHANNEL BLOCK
EVERY SAT
4:00PM _H CH___
⊃
Set the time.
SELECT RETURN EXIT MENU

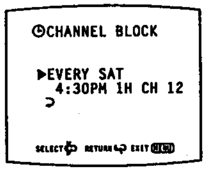
9 Press the rocker control up or down to select ":30" (minutes); then click the rocker control.
Each time you press the rocker control up or down, the minutes change in sequence.


CHANNEL BLOCK
EVERY SAT
4:30PM _H CH___
⊃
Set the duration.
SELECT RETURN EXIT MENU

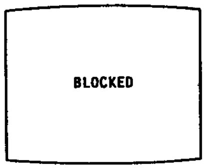
10 Press the rocker control up or down to select "1" (hour duration); then click the rocker control.
Each time you press the rocker control up or down, the duration changes from "1" – "6" in sequence.


CHANNEL BLOCK
EVERY SAT
4:30PM 1H CH___
⊃
Set the channel.
SELECT RETURN EXIT MENU

11 Press the rocker control up or down to select "12" (channel); then click the rocker control.
The setting is complete.
Each time you press the rocker control up or down, the channel number changes from "1" – "125" in sequence.


CHANNEL BLOCK
▶EVERY SAT
4:30PM 1H CH 12
⊃
SELECT RETURN EXIT MENU

At the specified time, "BLOCKED" appears in red on the screen, and the picture of the specified channel is blocked and the sound is muted.


BLOCKED

To erase a CHANNEL BLOCK setting
Display the CHANNEL BLOCK screen and select the underlined spaces for the day setting.
The CHANNEL BLOCK setting is erased.

To enter a new CHANNEL BLOCK setting
Display the CHANNEL BLOCK screen and repeat steps 4 – 10. (You can only set one CHANNEL BLOCK at a time.)

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

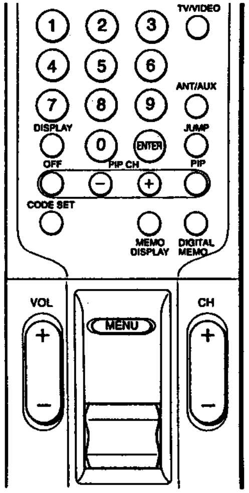
To return to the normal screen.
Press MENU on the Remote Commander.

Note
If the ON/OFF TIMER is set for an overlapping time (pp. 67 – 69), the later time setting takes precedence. For example, if CHANNEL BLOCK is set for 2:00 PM and ON/OFF TIMER is set for 3:00 PM, ON/OFF TIMER will take effect at 3:00 PM.

1-16. SETTING FAVORITE CHANNEL

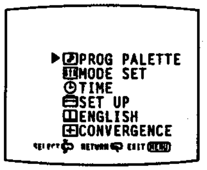
By setting FAVORITE CHANNEL, you can select the channels you use most frequently (up to seven channels) simply by clicking the rocker control on the Remote Commander.

Remote Commander (Outer panel)


TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
VOL
MENU
CH

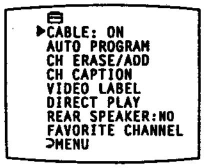
Follow these instructions to set the channels.

1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

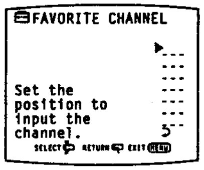
2 Press the rocker control up or down until the cursor points to "SET UP."

3 Click the rocker control.
The set up menu appears.


▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

4 Press the rocker control up or down until the cursor points to "FAVORITE CHANNEL."

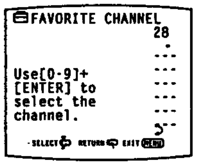
5 Click the rocker control.
The FAVORITE CHANNEL screen appears, and the cursor points to the first channel position.


FAVORITE CHANNEL
SELECT RETURN EXIT MENU

Set the position to input the channel.

6 Press the rocker control up or down to select the channel position; then click the rocker control.

7 Press 0 – 9 and ENTER to set the channel number.


FAVORITE CHANNEL
28
SELECT RETURN EXIT MENU

Use[0-9]+ [ENTER] to select the channel.

8 Click the rocker control.
The setting is complete.

To set other channels
Repeat steps 6 – 8.

To erase a favorite channel setting
Press the rocker control up or down until the cursor points to the channel number you want to erase; click the rocker control, then press 0 and ENTER.

To reset a favorite channel setting
Display the FAVORITE CHANNEL screen and repeat steps 6 – 8.

To return to the previous menu
Press the rocker control up or down until the cursor points to "⊃ MENU." Then click the rocker control.

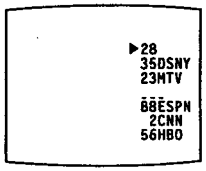
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

Selecting a favorite channel

After setting the channels, follow these instructions to select the channel you want to watch.

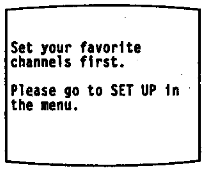
1 Click the rocker control.
The FAVORITE CHANNEL display appears.


▶28
35DSNY
23MTV
88ESPN
2CNN
56HBO

Note
If you have set channel captions (pp. 61 – 62), the captions appear with the channel numbers.

2 Press the rocker control up or down to select the channel you want to watch; then click the rocker control.
The channel is selected.

If you click the rocker control on the Remote Commander before setting FAVORITE CHANNEL, this screen appears.



Set your favorite channels first.

Please go to SET UP in the menu.

Follow steps 1 – 8 to set your favorite channels, and then make the selection.

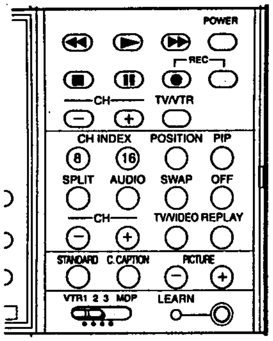
1-17. USING THE PROGRAMMABLE REMOTE COMMANDER

You can operate other video equipment (such as VCRs, video disc players and cable boxes) that have an infrared remote detector with this supplied Remote Commander.

Operating Sony video equipment

Follow these instructions to operate Sony video cassette recorders (Beta, 8 mm and VHS) and video disc players (including multi-disc players).

Remote Commander (Inner panel)



1 Set the VTR1-2-3 MDP selector according to the video equipment you want to operate.

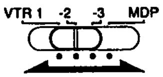


Fig. 2: Video equipment settings

If you want to operate a:	set to:
Beta, ED Beta VCR	VTR 1
8 mm VCR	VTR 2
VHS VCR	VTR 3
Video disc player	MDP

2 Use the video operating buttons to control the connected equipment.

Fig. 3: Operating a VCR (VTR1, 2, 3)	
To turn on or off	Press POWER.
To change channels (when watching TV programs through the VCR's tuner)	Press CH +/–.
To record	Press ● and REC simultaneously.
To play	Press ►.
To stop	Press ■.
To fast forward	Press ►►.
To rewind the tape	Press ◄◄.
To pause	Press ❚❚. *To resume normal playback, press again.*
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. *To resume normal playback, release the button.*
To change input mode	Press TV/VTR.

Fig. 4: Operating a Video Disc Player (MDP)	
To turn on or off	Press POWER.
To play	Press ►.
To stop	Press ■.
To pause	Press ❚❚. *To resume normal playback, press again.* **Note** This function is effective only for CAV (standard-play disc). With CLV (extended-play disc), the projection TV goes off (standby mode) if you press ❚❚.
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. *To resume normal playback, release the button.*

Notes

- If the video equipment does not have a certain function, the corresponding button on this Remote Commander will not operate.
- If you set another manufacturer's code to a VTR1-2-3 MDP selector position (pp. 76 – 77), you must also set the Sony code to operate Sony equipment.

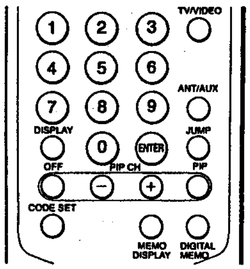
Caution
When you replace the batteries, do it within approximately 30 minutes. Otherwise the settings you made under the Pre-Programmed function (pp. 76 – 78) and Learning function (p. 79) may be erased.

Operating non-Sony or Sony video equipment

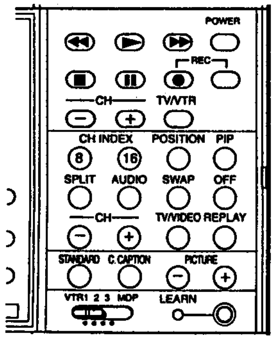
Follow these instructions to set the manufacturer's code, which will enable you to operate non-Sony and Sony video equipment with the pre-programmed Remote Commander.

Example: Operate an RCA video cassette recorder connected to the VIDEO 2 IN jacks.

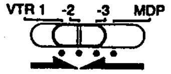
Remote Commander
(Outer panel)


TV/VIDEO
ANT/AUX
DISPLAY
JUMP
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO

(Inner panel)

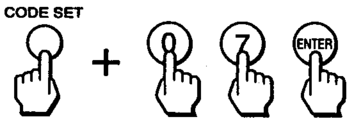

POWER
REC
CH
TV/VTR
CH INDEX
POSITION
PIP
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO REPLAY
STANDARD
C.CAPTION
PICTURE
VTR1 2 3 MDP
LEARN

1 Set the VTR1-2-3 MDP selector to VTR2.



Note
To use another manufacturer's equipment besides a Sony VCR, set the selector to a position not being used for your Sony video equipment.

2 While pressing CODE SET, press 0, 7 and ENTER to set RCA's code number. (For manufacturer code numbers, see Figs. 5, 6 and 7 on p. 77.)


CODE SET
+
0
7
ENTER

A long beep sounds, indicating that the code has been set.

Note
If you press a wrong code, or if the code has not been set, four short beeps sound. Repeat step 3 to set the code.

3 Use the video operating buttons to operate the connected equipment. (see Fig. 3 on p. 74 and Fig. 4 on p. 75.)

Fig. 5: VCR manufacturer code numbers

MANUFACTURER	CODE
SONY	01, 02, 03
CANON	05
EMERSON	22, 30, 33
FISHER	10, 11, 12, 15
FUNAI	29
GENERAL ELECTRIC	05, 08
GOLDSTAR	25
HITACHI	07, 08, 36
JVC	16, 35
MAGNAVOX	05, 06, 09
MITSUBISHI	18, 19, 26, 27
MULTITECH	29
NEC	16, 23, 31
PANASONIC	05, 06
PHILCO	05, 06
PHILIPS	05, 06, 09
QUASAR	05, 06
RCA	07, 08
SAMSUNG	24, 32
SANYO	11, 15
SCOTT	21
SHARP	13, 14
SHINTOM	34
SYLVANIA	05, 06, 09
SYMPHONIC	29
TEKNIKA	28, 29
TOSHIBA	20, 21
TOTE VISION	25
ZENITH	17

Fig. 6: MDP manufacturer code numbers

MANUFACTURER	CODE
SONY	04
KENWOOD	58
MAGNAVOX	52
MARANZ	54
MITSUBISHI	51
PANASONIC	55
PHILIPS	52
PIONEER	51
RCA	51
SANYO	57
SHARP	56
YAMAHA	53

Fig. 7: Sony Equipment and Code Numbers

SONY EQUIPMENT	CODE
Beta, ED Beta VCR	01
8 mm VCR	02
VHS VCR	03
Video disc player	04

Note
In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied Remote Commander. This is because your equipment may use a code that is not provided with this Remote Commander. In this case, please use the equipment's own remote control unit.

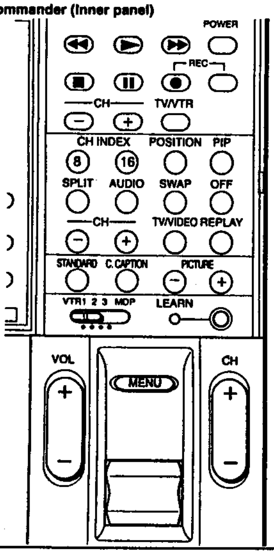
Selecting a VCR mode directly — DIRECT PLAY

Follow these instructions to switch from TV to VCR mode by simply pressing the ► (playback) button on the supplied Remote Commander.

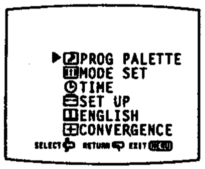
Example: Connect your VCR to the VIDEO 1 IN jacks, and set the VTR1-2-3 MDP selector to VTR2. When you press ►, the input mode changes to the VCR connected to the VIDEO 1 IN jacks.

After completing the steps below, the VTR selector position is retained in the projection TV's memory.

Remote Commander (inner panel)



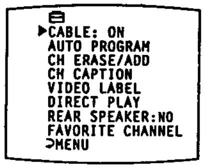
1 Press MENU.
The main menu appears.



```
►PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
```

2 Press the rocker control up or down until the cursor points to "SET UP."

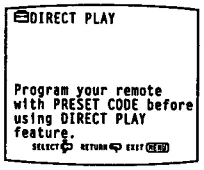
3 Click the rocker control.
The set up menu appears.



```
►CABLE: ON
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER:NO
 FAVORITE CHANNEL
 ⊃MENU
```

4 Press the rocker control up or down until the cursor points to "DIRECT PLAY."

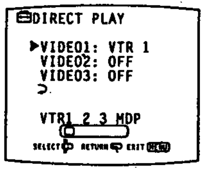
5 Click the rocker control.
A message screen appears.



```
DIRECT PLAY


Program your remote
with PRESET CODE before
using DIRECT PLAY
feature.
```

Note
This screen reminds you to set the manufacturer's code, if you have not already done so (pp. 76 – 78).

6 Click the rocker control again.
The DIRECT PLAY screen appears.

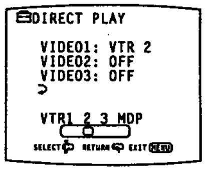


```
DIRECT PLAY

►VIDEO1: VTR 1
 VIDEO2: OFF
 VIDEO3: OFF
 ⊃

 VTR1 2 3 MDP
```

7 Press the rocker control up or down until the cursor points to the video input mode. (When the video equipment is connected to VIDEO 1 IN, select "VIDEO1.")

8 Click the rocker control.
The mode display turns red.

9 Press the rocker control up or down to select the VTR selector mode you have set on the Remote Commander. (When the VTR1-2-3 MDP selector is set to VTR2, select "VTR 2.")
Each time you press the rocker control up or down, "VTR 1," "VTR 2," "VTR 3," "MDP" and "OFF" appear in sequence.



```
DIRECT PLAY

 VIDEO1: VTR 2
 VIDEO2: OFF
 VIDEO3: OFF
 ⊃

 VTR1 2 3 MDP
```

10 Click the rocker control.
The direct play setting is complete.

To set direct play for other connected video equipment
Repeat steps 7 – 10.

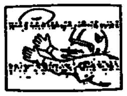
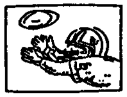
To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

1-18. TROUBLESHOOTING

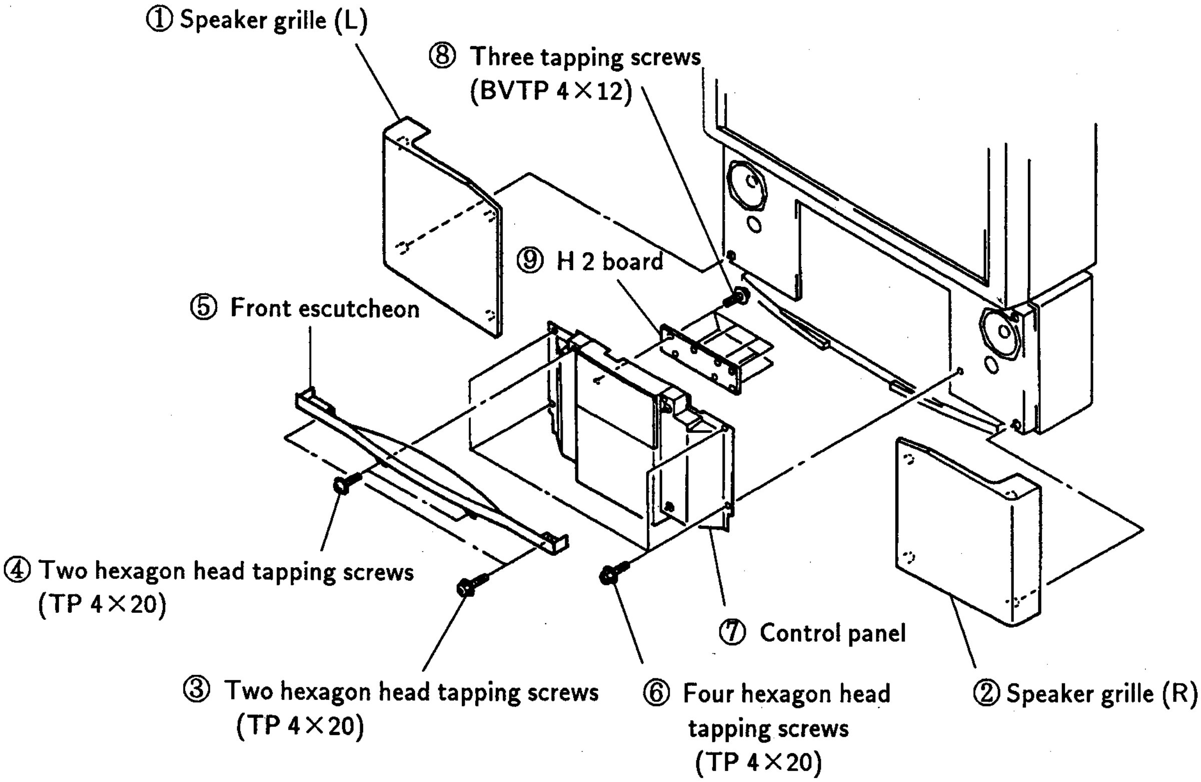
Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed here. If the problem still cannot be solved, contact your nearest service facility.

Symptom	Possible causes and remedies
No picture (screen not lit), no sound	• Make sure POWER is switched on. • Check the power cord connection. • Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly. • Make sure that the TV/CABLE BOX selector is set to TV.
Poor or no picture (screen not lit), good sound	• Adjust the picture using the VIDEO screen (pp. 50 – 53). • Check the antenna/cable connections. • Adjust the color registration (pp. 26 – 27).
Good picture, no sound	• Press VOLUME + on the projection TV or VOL + on the Remote Commander. • Press MUTING on the Remote Commander. • Check the MTS setting (p. 58). • Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly. • Make sure SPEAKER is set correctly (p. 59).
No color for color programs	• Check the HUE and COLOR settings (pp. 50 – 51).
Snow and noise only	• Check that it is an active or correct channel. • Check the cable setting. • Check the ANT/AUX button setting. • Check antenna/cable connections.
 Dotted lines or stripes	This is often caused by local interference (for example, cars, neon signs and hairdryers). Adjust the telescopic aerial for minimum interference.
 Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. Connecting a highly directional outdoor antenna or a CATV cable may improve the picture.
Remote control does not operate	• Check the battery in the Remote Commander.
No picture and/or sound for the connected equipment	• Check that the TV/VIDEO button is set correctly. • Check that the connections are properly made. • Check that the power of the connected equipment is turned on. • Check that the connected equipment is set correctly.
Try another channel. It could be station trouble.	

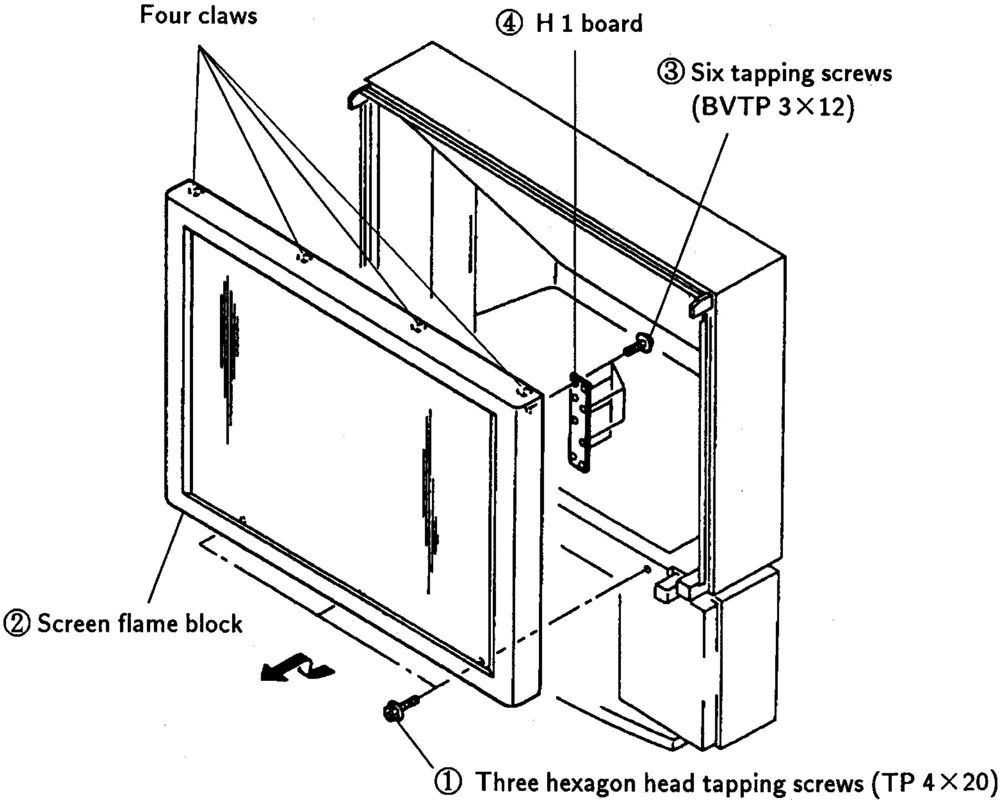
SECTION 2

DISASSEMBLY

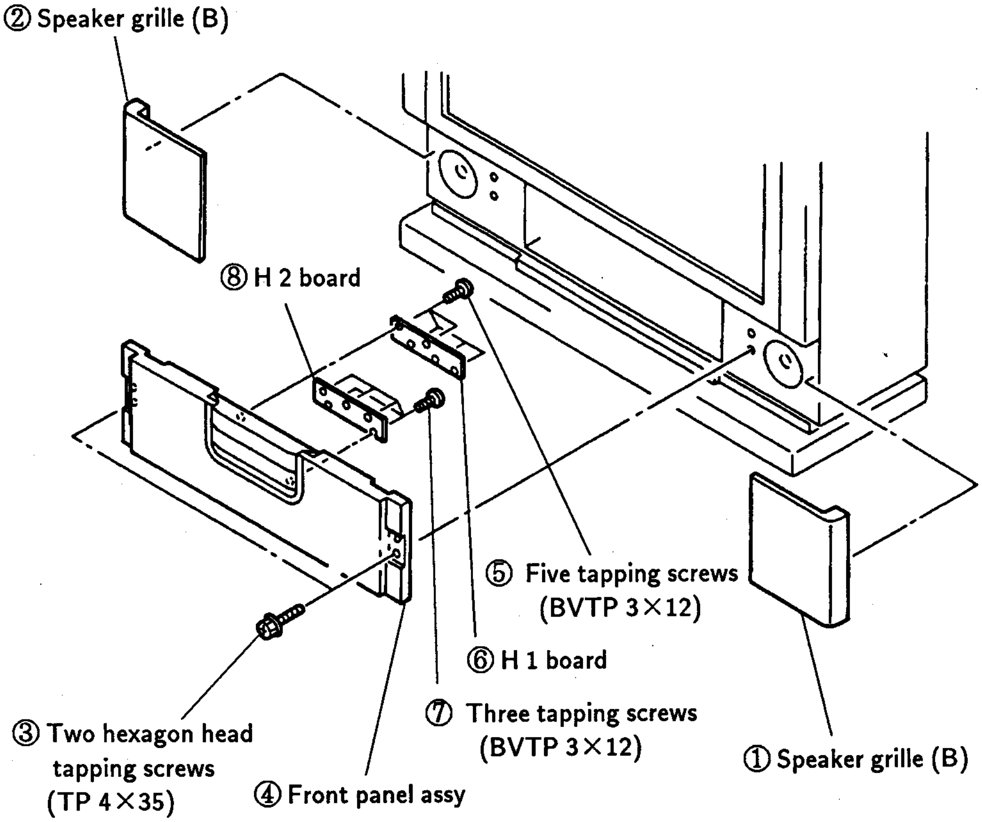
2-1. H2 BOARD REMOVAL (KP-46XBR35/53XBR35 (US/CND) only)


① Speaker grille (L)
⑧ Three tapping screws (BVTP 4×12)
⑨ H 2 board
⑤ Front escutcheon
④ Two hexagon head tapping screws (TP 4×20)
⑦ Control panel
③ Two hexagon head tapping screws (TP 4×20)
⑥ Four hexagon head tapping screws (TP 4×20)
② Speaker grille (R)

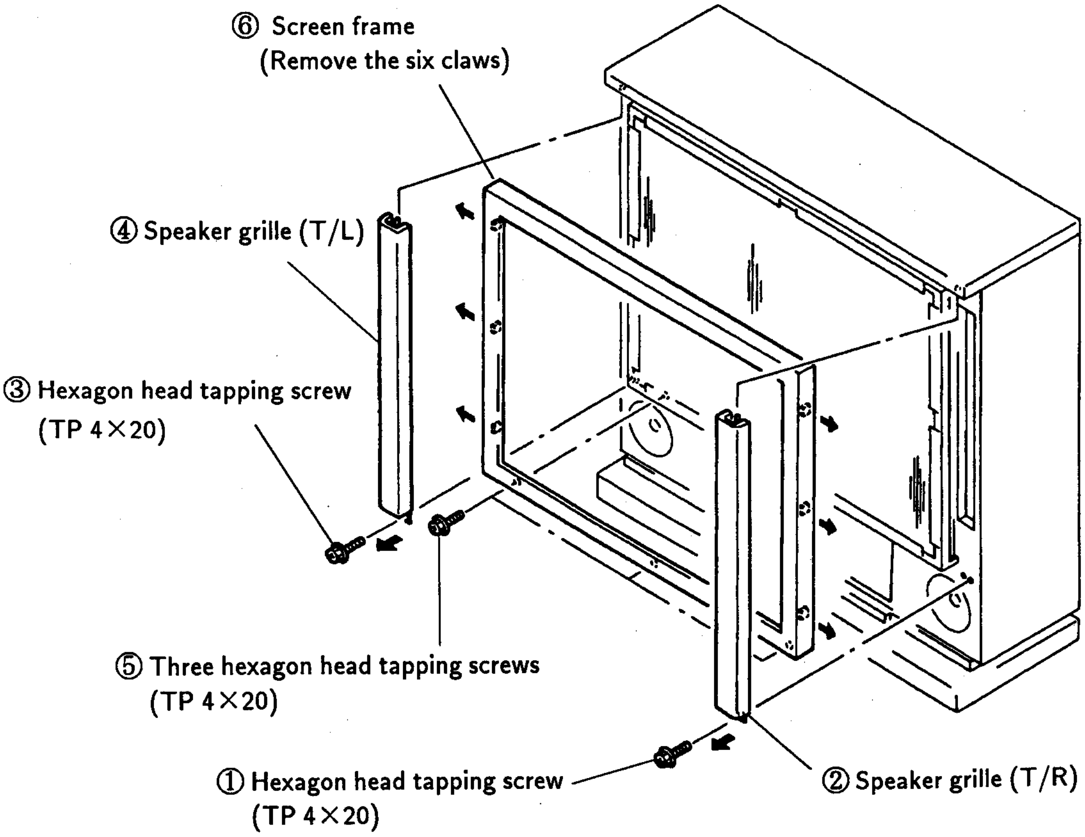
2-2. H1 BOARD REMOVAL (KP-46XBR35/53XBR35 (US/CND) only)


Four claws
④ H 1 board
③ Six tapping screws (BVTP 3×12)
② Screen flame block
① Three hexagon head tapping screws (TP 4×20)

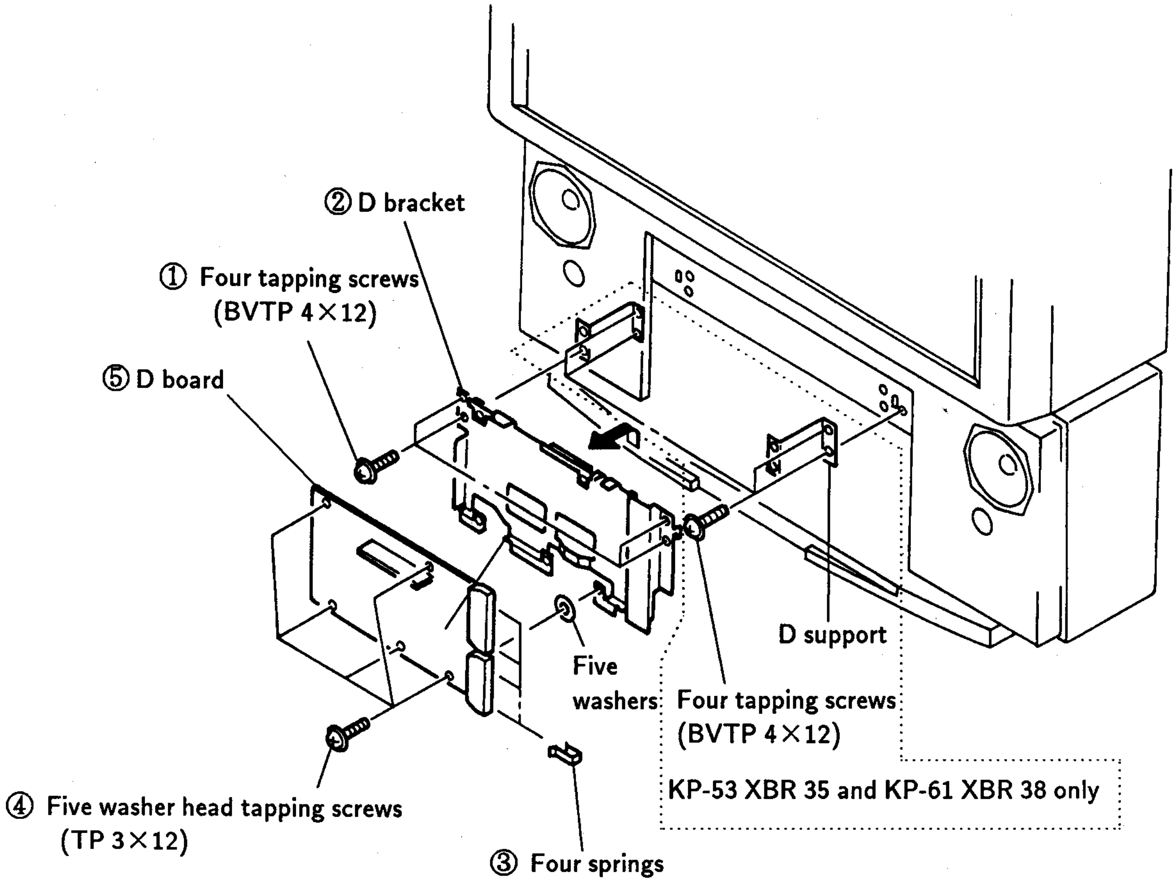
2-3-1. H1 AND H2BOARDS REMOVAL (KP-61XBR38 only)


② Speaker grille (B)
⑧ H 2 board
⑤ Five tapping screws (BVTP 3×12)
⑥ H 1 board
⑦ Three tapping screws (BVTP 3×12)
③ Two hexagon head tapping screws (TP 4×35)
④ Front panel assy
① Speaker grille (B)

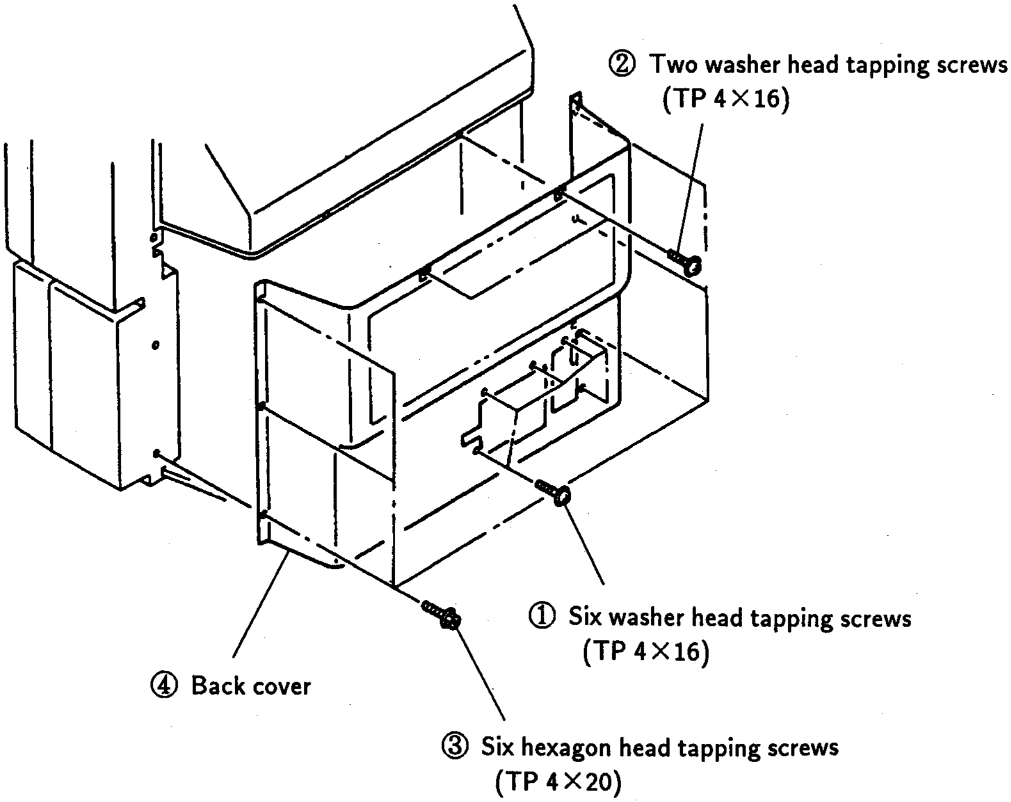
2-3-2. SCREEN FRAME REMOVAL (KP-61XBR38 only)


⑥ Screen frame (Remove the six claws)
④ Speaker grille (T/L)
③ Hexagon head tapping screw (TP 4×20)
⑤ Three hexagon head tapping screws (TP 4×20)
① Hexagon head tapping screw (TP 4×20)
② Speaker grille (T/R)

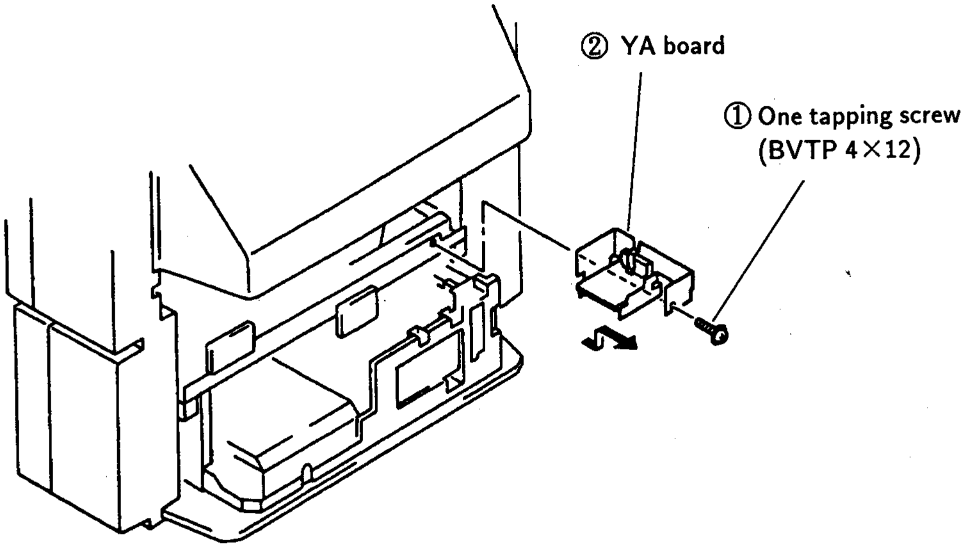
2-4. D BOARD REMOVAL


② D bracket
① Four tapping screws
(BVTP 4×12)
⑤ D board
Five
washers
D support
Four tapping screws
(BVTP 4×12)
KP-53 XBR 35 and KP-61 XBR 38 only
④ Five washer head tapping screws
(TP 3×12)
③ Four springs

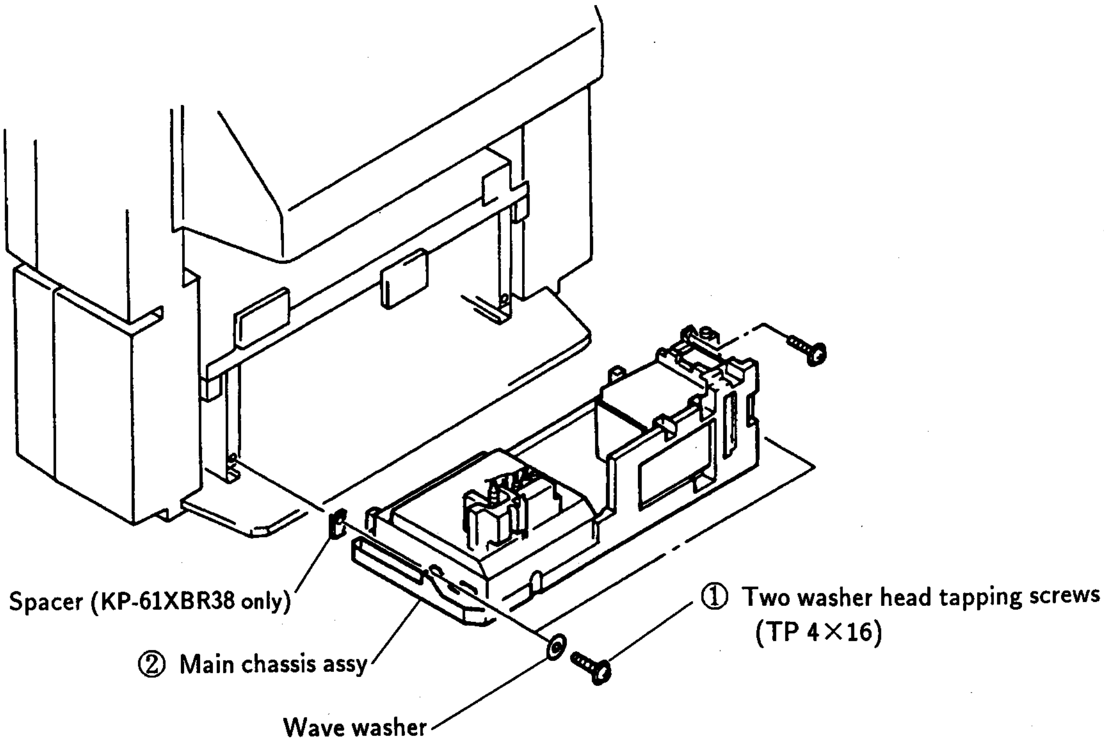
2-5. BACK COVER REMOVAL


② Two washer head tapping screws
(TP 4×16)
① Six washer head tapping screws
(TP 4×16)
④ Back cover
③ Six hexagon head tapping screws
(TP 4×20)

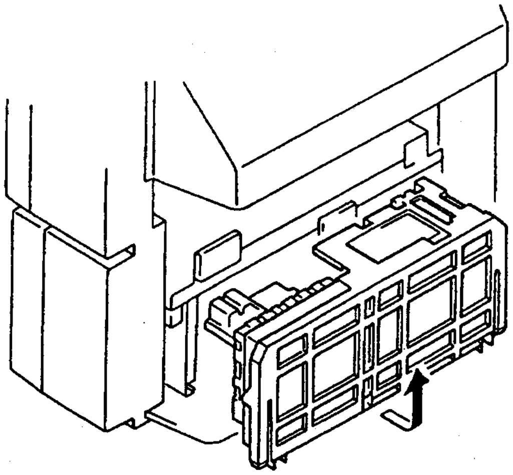
2-6. YA BOARD REMOVAL


② YA board
① One tapping screw
(BVTP 4×12)

2-7. MAIN CHASSIS ASSY REMOVAL


Spacer (KP-61XBR38 only)
② Main chassis assy
Wave washer
① Two washer head tapping screws
(TP 4×16)

2-8. SERVICE POSITION



NOTES INSERTED IN SERVICE POSITION SECTION

Service Position Procedure

(1) Remove the path locks where the harness comes into.
(MAIN bracket, G shield)

(2) Remove the following connectors before removing the main bracket.
✻ HV grounding lead, G shield grounding lead, uT35 grounding lead (uT board), V-2 connector (V board).

(3) Remove the main bracket. (Take care as the connector leads linking to the C and Z boards are considerably short.)
(MAIN bracket, G shield)

(4) When pulling out the main bracket with power ON, be sure to connect the connectors removed.
✻ HV grounding lead, G shield grounding lead, uT35 grounding lead (uT board).

In case that grounding lead (Black) of HV Block is not connected with chassis grounding, it causes arcing of CRT and it is dangerous.

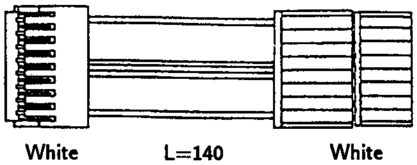
Be sure to connect grounding lead of HV Block with chassis grounding.

CONNECTOR CABLES

※ **In order to put the set in the service position, use the extension connector cables below.**

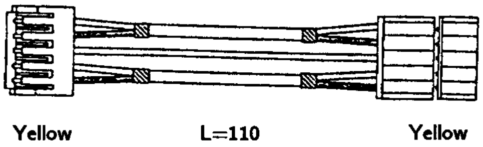
Parts No.	Connection
1-941-897-38	CB-4 (G-4)

1 : Brown
2 : –
3 : –
4 : Yellow
5 : Green
6 : –
7 : –
8 : Gray


White
L=140
White

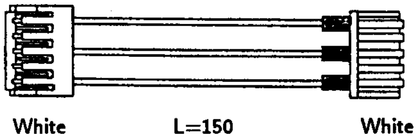
Parts No.	Connection
1-941-897-39	CG-16 (A-16)

1 : White/Gray
2 : Gray/Shield
3 : Orange
4 : Red/Gray
5 : Gray/Shield


Yellow
L=110
Yellow

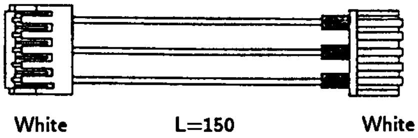
Parts No.	Connection
1-941-897-40	ZG-19 (A-19)

1 : Green
2 : –
3 : Black
4 : –
5 : Brown


White
L=150
White

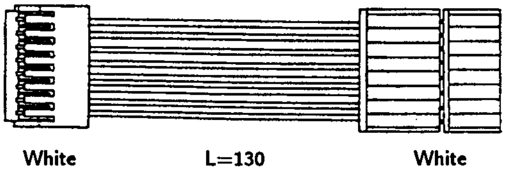
Parts No.	Connection
1-941-897-41	ZR-18 (A-18)

1 : Red
2 : –
3 : Black
4 : –
5 : Brown


White
L=150
White

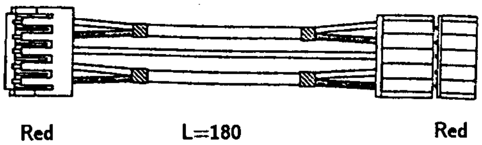
Parts No.	Connection
1-941-897-42	ZG-2 (D-2)

1 : –
2 : Red
3 : Orange
4 : Yellow
5 : Green
6 : Blue
7 : Violet
8 : Gray


White
L=130
White

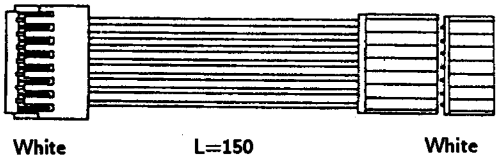
Parts No.	Connection
1-941-897-43	CR-15 (A-15)

1 : White/Gray
2 : Gray/Shield
3 : Orange
4 : Red/Gray
5 : Gray/Shield


Red
L=180
Red

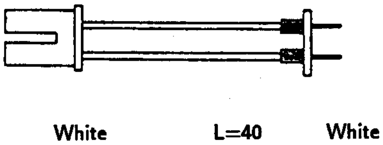
Parts No.	Connection
1-941-897-44	ZR-1 (D-1)

1 : Brown
2 : Red
3 : Orange
4 : Yellow
5 : Green
6 : Blue
7 : Violet


White
L=150
White

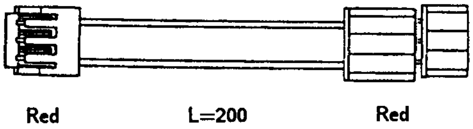
Parts No.	Connection
1-941-897-45	A-21 (CRT BRACKET)

1 : Black
2 : Black


White
L=40
White

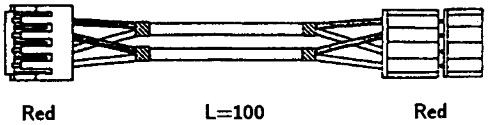
Parts No.	Connection
1-941-897-46	V-2 (ZR-3)

1 : Brown
2 : –
3 : Red

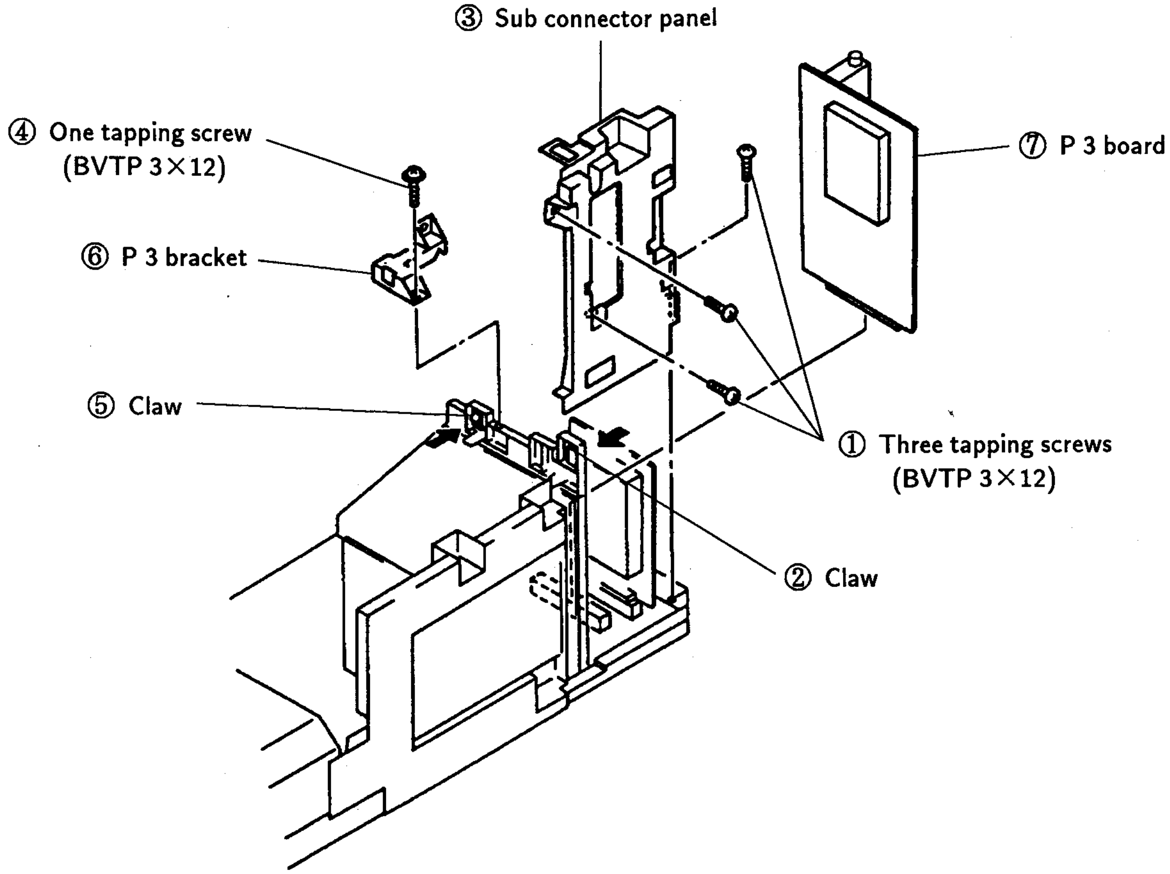

Red
L=200
Red

Parts No.	Connection
1-941-897-47	A-3 (YG-3)

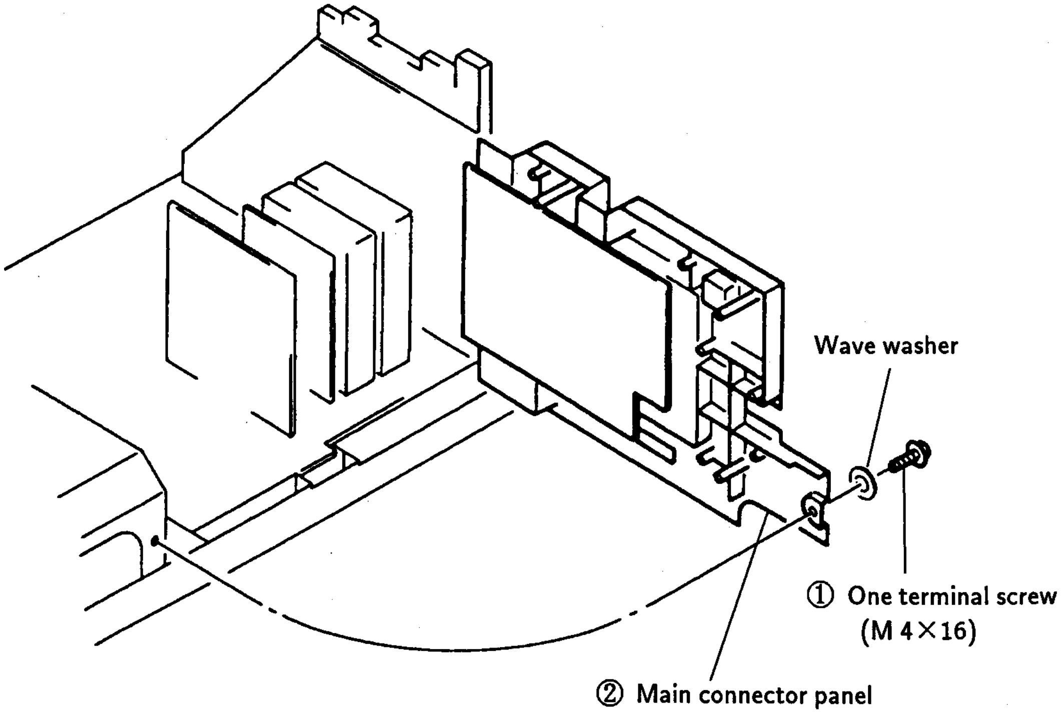
1 : Red
2 : White
3 : Gray/Shield
4 : Black


Red
L=100
Red

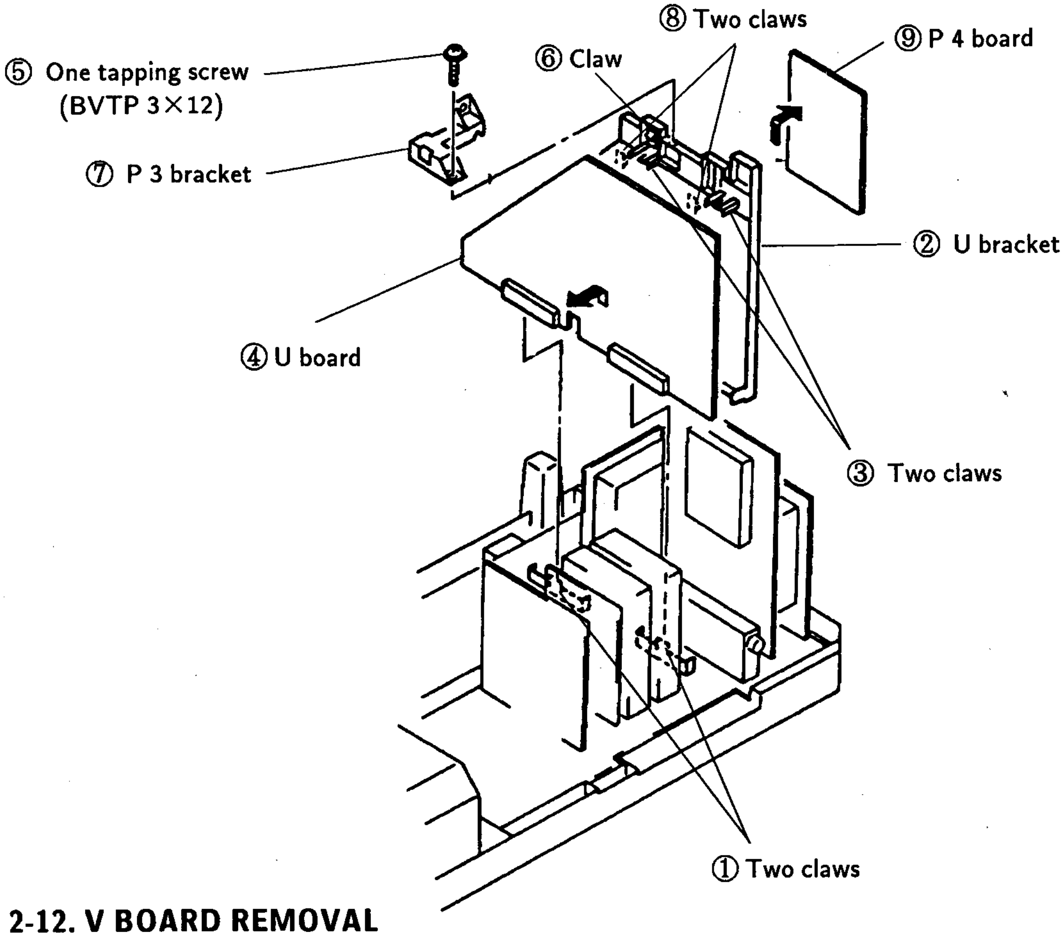
2-9. P 3 BOARD REMOVAL


③ Sub connector panel
④ One tapping screw
(BVTP 3×12)
⑦ P 3 board
⑥ P 3 bracket
⑤ Claw
① Three tapping screws
(BVTP 3×12)
② Claw

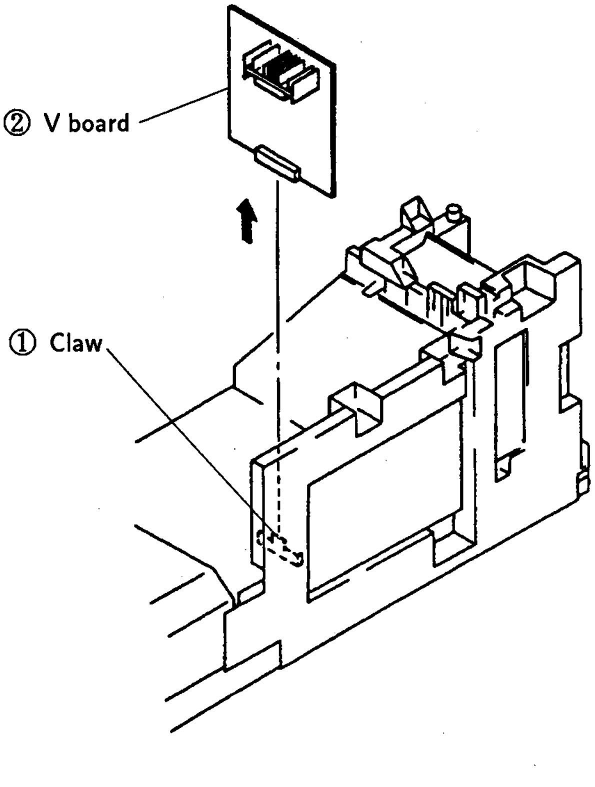
2-10. MAIN CONNECTOR PANEL REMOVAL


Wave washer
① One terminal screw
(M 4×16)
② Main connector panel

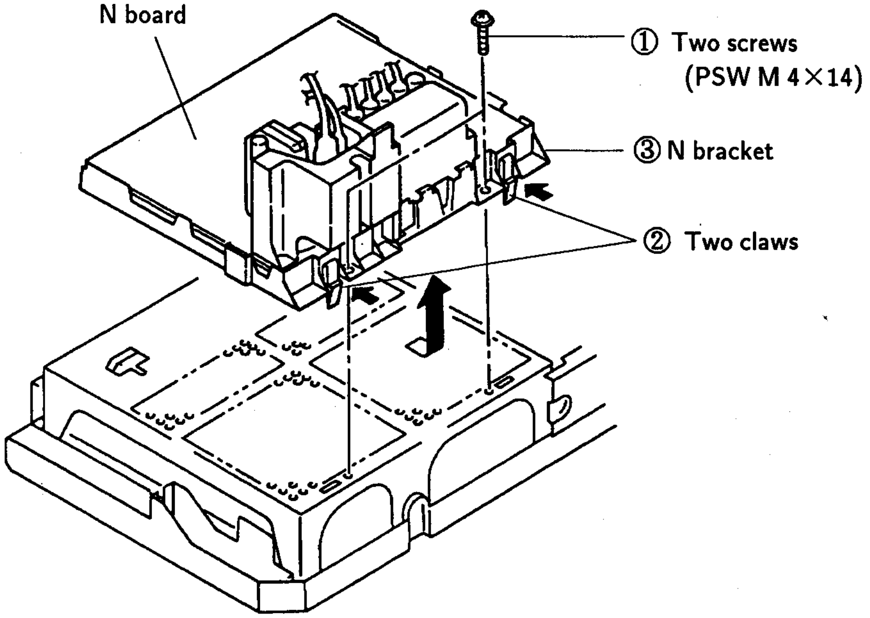
2-11. U AND P 4 BOARDS REMOVAL


⑤ One tapping screw
(BVTP 3×12)
⑦ P 3 bracket
⑥ Claw
⑧ Two claws
⑨ P 4 board
② U bracket
④ U board
③ Two claws
① Two claws

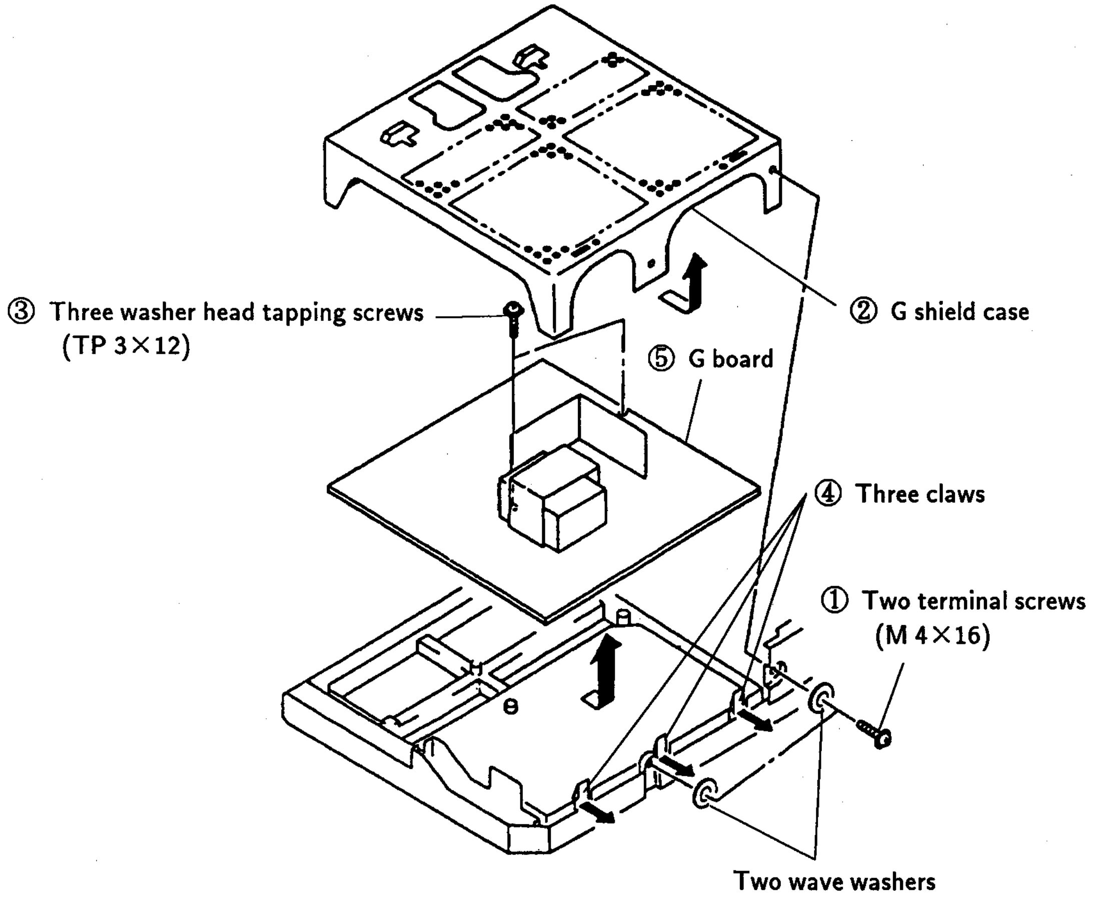
2-12. V BOARD REMOVAL


② V board
① Claw

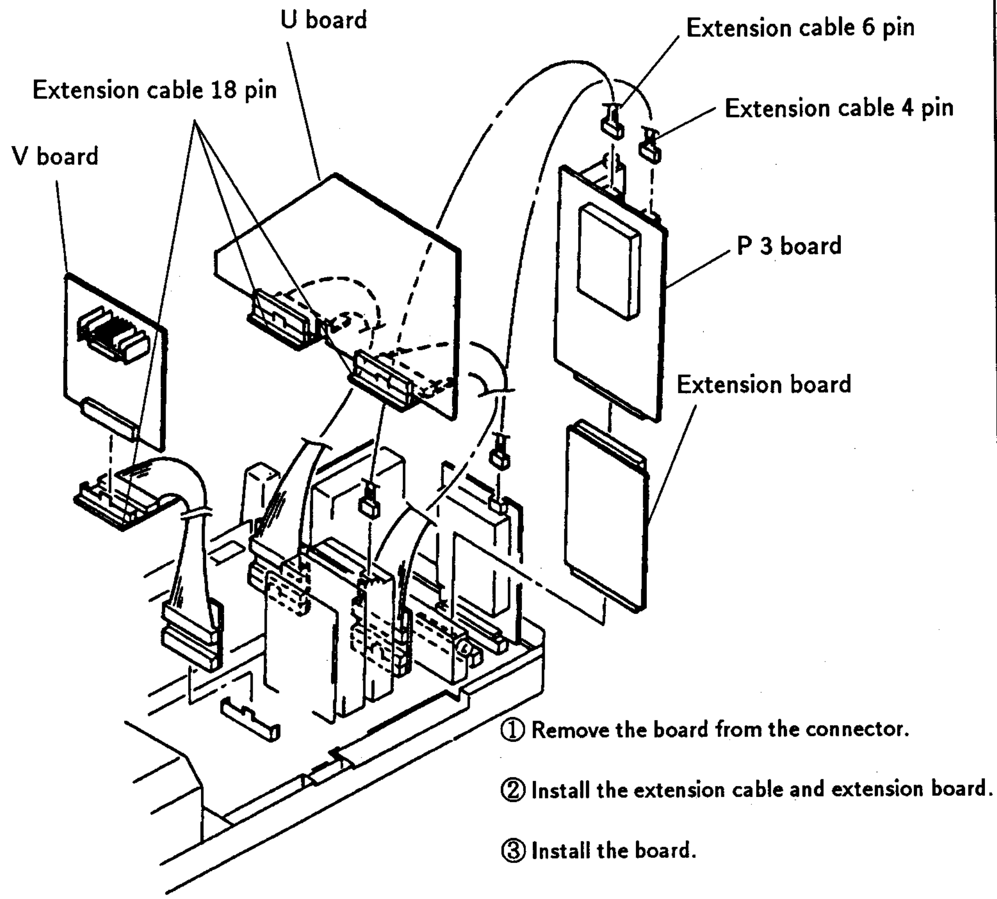
2-13. N BRACKET REMOVAL


N board
① Two screws
(PSW M 4×14)
③ N bracket
② Two claws

2-14. G BOARD REMOVAL


③ Three washer head tapping screws
(TP 3×12)
② G shield case
⑤ G board
④ Three claws
① Two terminal screws
(M 4×16)
Two wave washers

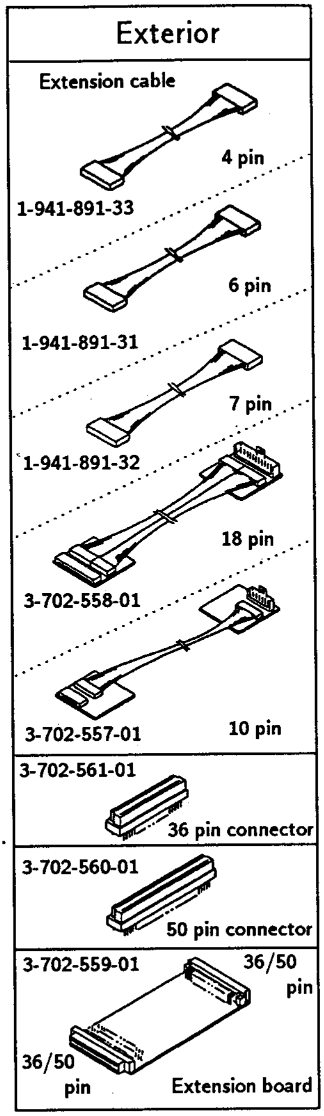
2-15-1. CONNECTOR CABLE


U board
Extension cable 6 pin
Extension cable 18 pin
Extension cable 4 pin
V board
P 3 board
Extension board

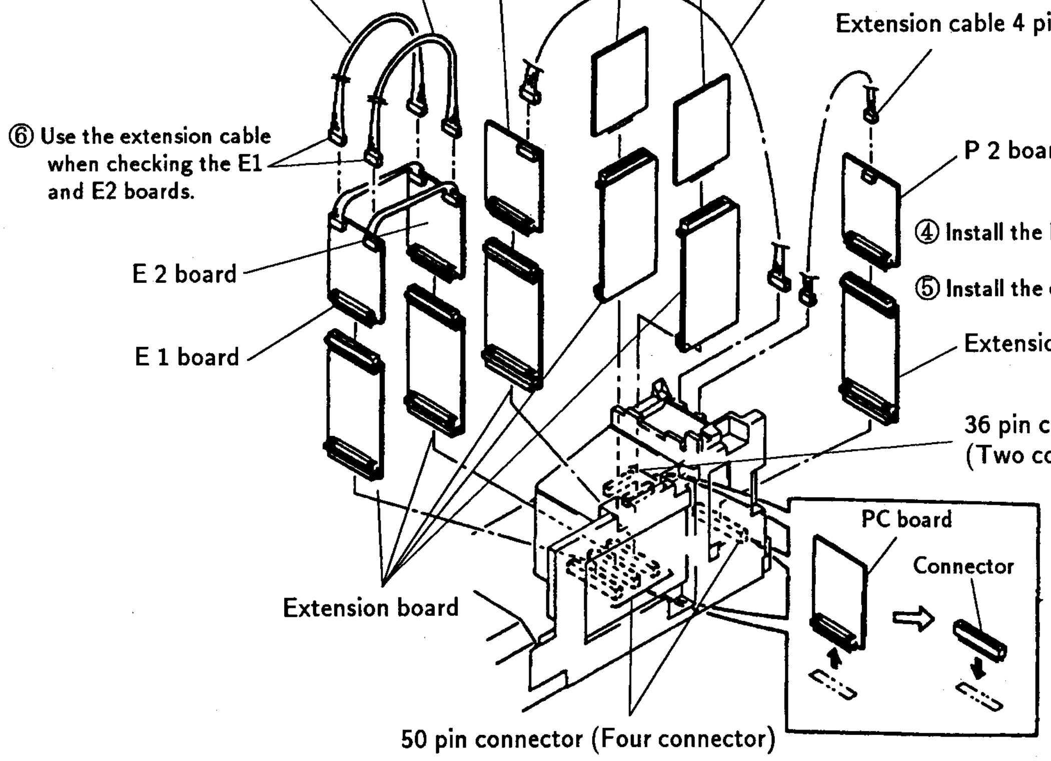
① Remove the board from the connector.

② Install the extension cable and extension board.

③ Install the board.


Exterior
Extension cable
4 pin
1-941-891-33
6 pin
1-941-891-31
7 pin
1-941-891-32
18 pin
3-702-558-01
3-702-557-01
10 pin
3-702-561-01
36 pin connector
3-702-560-01
50 pin connector
3-702-559-01
36/50 pin
36/50 pin
Extension board

2-15-2. CONNECTOR CABLE


Extension cable 6 pin
Y 2 board
Extension cable 6 pin
Extension cable 7 pin
M board
X 3 board
Extension cable 4 pin
P 2 board
E 2 board
E 1 board
Extension board
36 pin connector (Two connector)
PC board
Connector
Extension board
50 pin connector (Four connector)

⑥ Use the extension cable when checking the E1 and E2 boards.

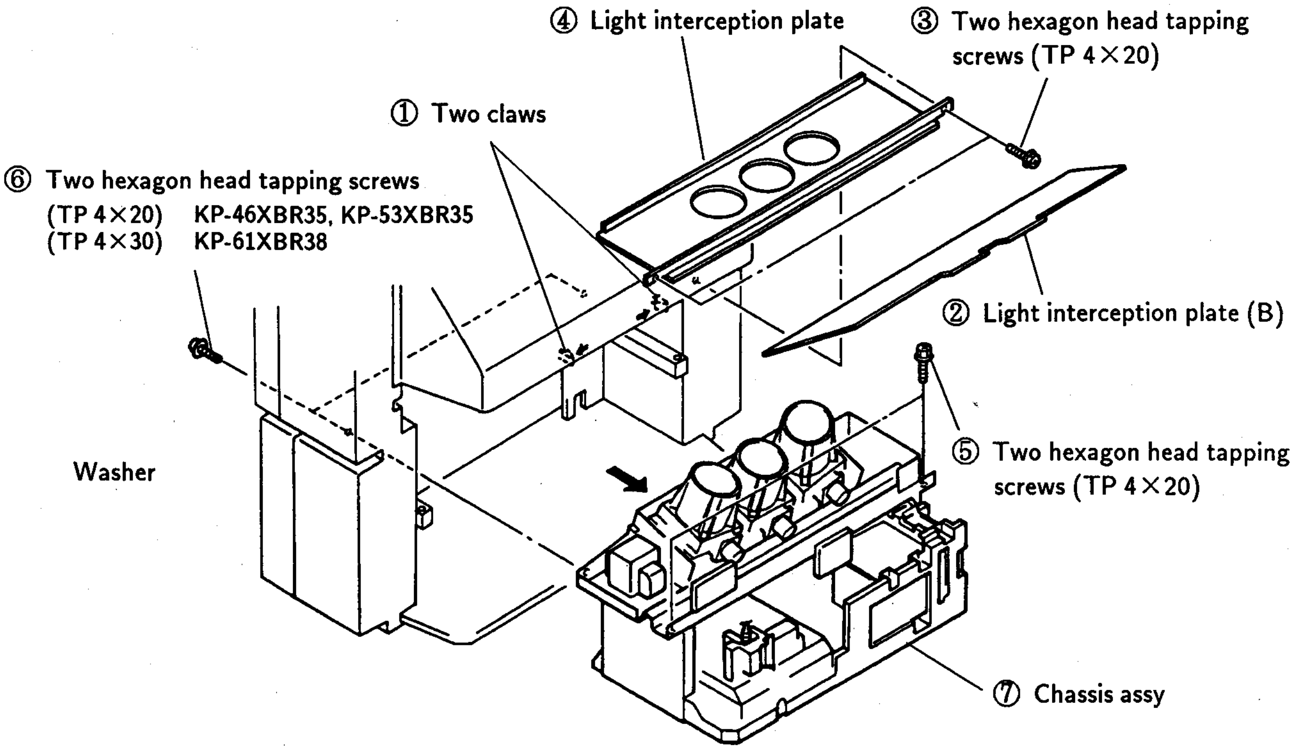
④ Install the PC board removed.

⑤ Install the extension board.

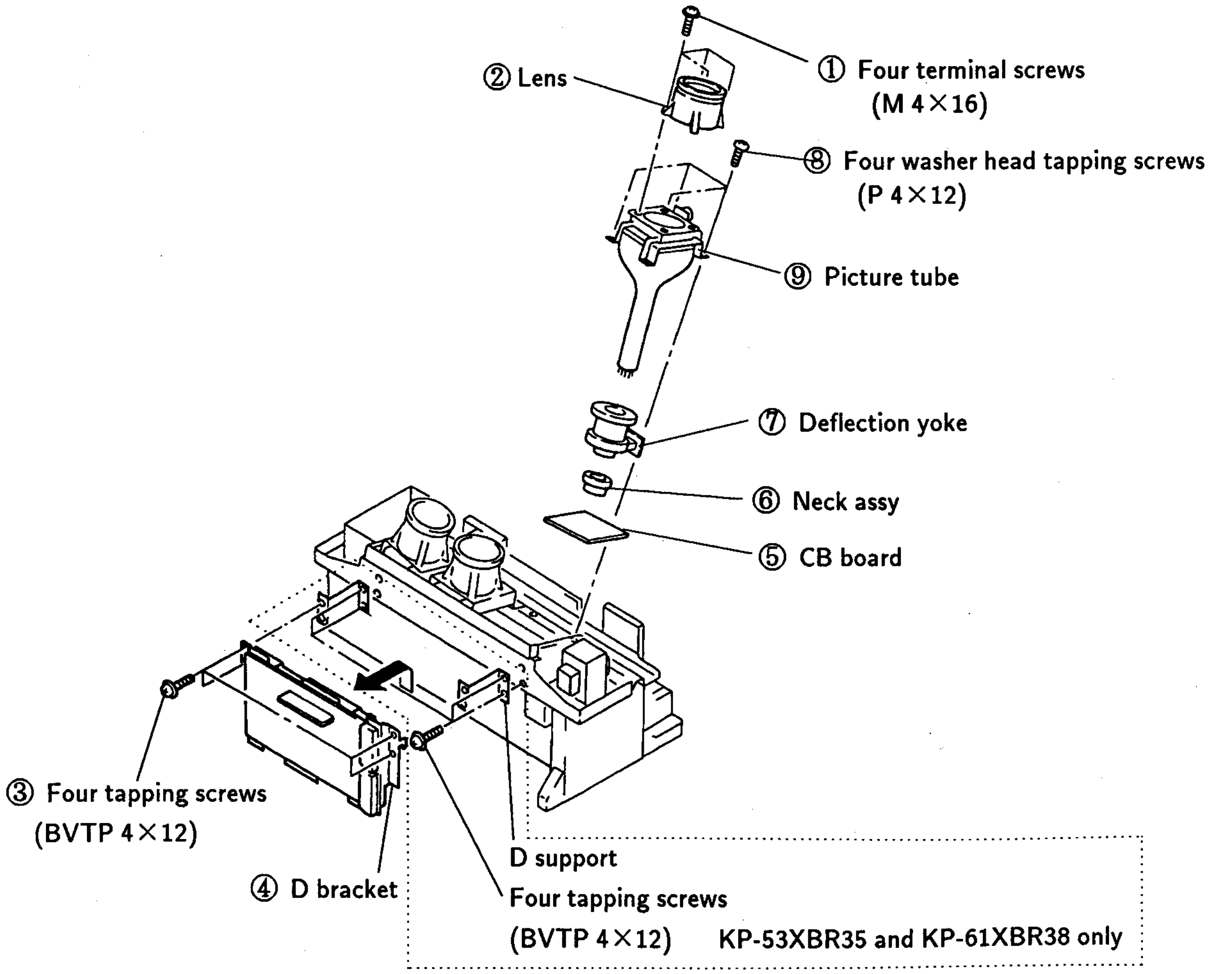
(1) De-solder the PC board and remove it.

(2) Solder the connector.

2-16. CHASSIS ASSY REMOVAL

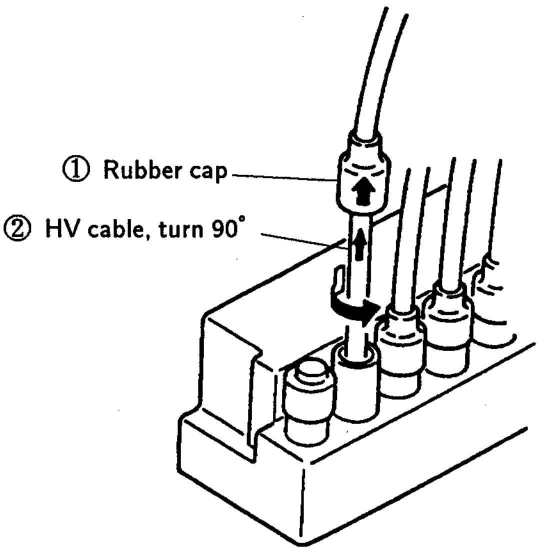

④ Light interception plate
③ Two hexagon head tapping screws (TP 4×20)
① Two claws
⑥ Two hexagon head tapping screws
(TP 4×20) KP-46XBR35, KP-53XBR35
(TP 4×30) KP-61XBR38
② Light interception plate (B)
Washer
⑤ Two hexagon head tapping screws (TP 4×20)
⑦ Chassis assy

2-17. PICTURE TUBE REMOVAL

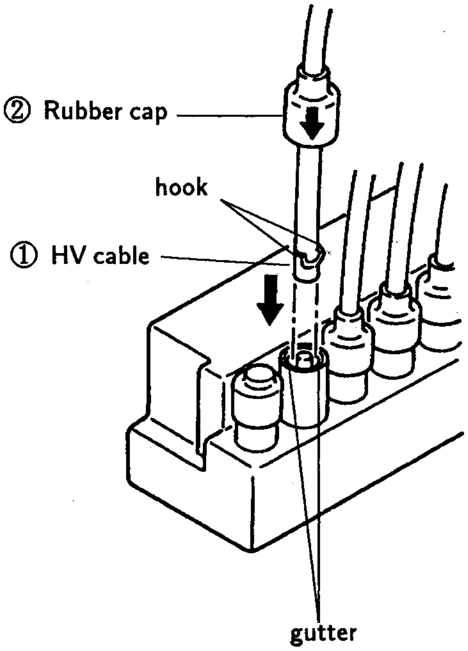

② Lens
① Four terminal screws (M 4×16)
⑧ Four washer head tapping screws (P 4×12)
⑨ Picture tube
⑦ Deflection yoke
⑥ Neck assy
⑤ CB board
③ Four tapping screws (BVTP 4×12)
④ D bracket
D support
Four tapping screws
(BVTP 4×12) KP-53XBR35 and KP-61XBR38 only

2-18. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

(1) Remover


① Rubber cap
② HV cable, turn 90°

(2) Installation

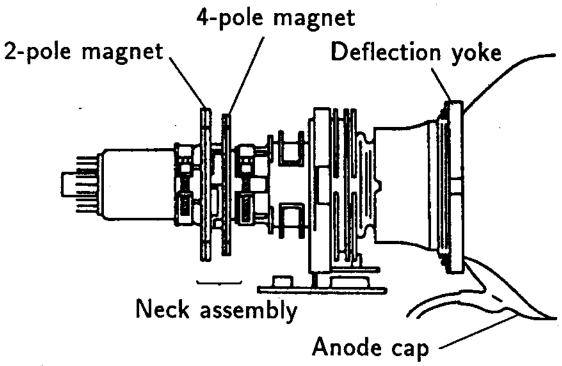

② Rubber cap
hook
① HV cable
gutter

SECTION 3

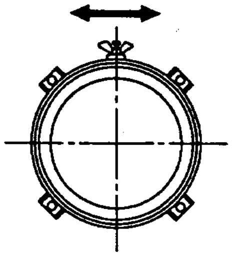
SETUP ADJUSTMENTS

3-1. FOCUS LENS ADJUSTMENTS

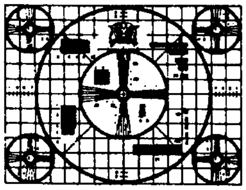
1. Set the D-board registration variable resistors (VR) to mechanical center.
2. Set the centering magnets (for red, green, and blue) to 0 as shown in the figure.

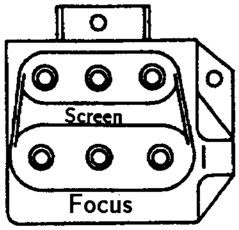


3. Input monoscope signal. Set 50% BRIGHTNESS and minimum PICTURE. Make rough adjustment so that 10IRE of the monoscope signal becomes faintly luminous using the screen VRs.
4. Set PICTURE and BRIGHTNESS maximum. Press the commander menu button. Select CONVERGENCE to display test signal.
5. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
6. Turn the green lens to eliminate flare of the test signal.

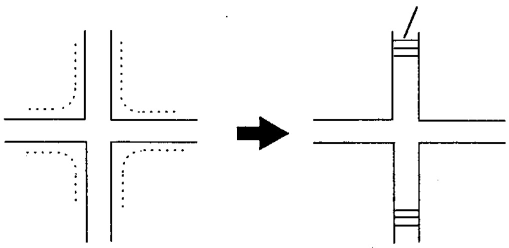


(Lens)

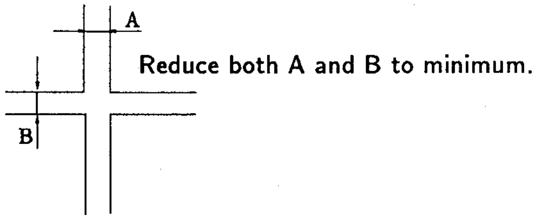




(Focus block)



7. Turn the green focus VR in the focus block to adjust green focus to reduce both A and B of the test signal to minimum.



8. Repeat avobe 6 and 7. Couple of times to improve tracking and obtain an optimum focus. Then tighten the green lens screw.
9. Adjust the red and blue focuses similarly.

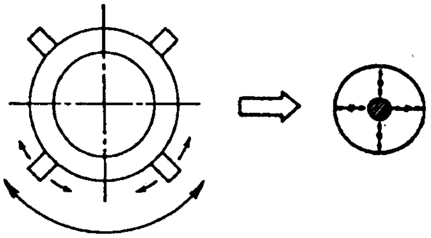
3-2. DEFLECTION YOKE POSITION ADJUSTMENTS

1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Loosen the deflection yoke (DY) fitting screws. Tilt the DY to obtain the best horizontal and vertical monoscope patterns.
4. After adjustment, press the DY onto the cathode ray tube (CRT) funnel and tighten the screws.
5. Also adjust DY positions for red and blue outputs in the same way.

3-3. 2-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block counterclockwise from the just focus to brighten the point in the dot.
4. Adjust the 2-pole magnet to position the bright point at the center of the dot.
5. Adjust the red and blue dots in the same way.

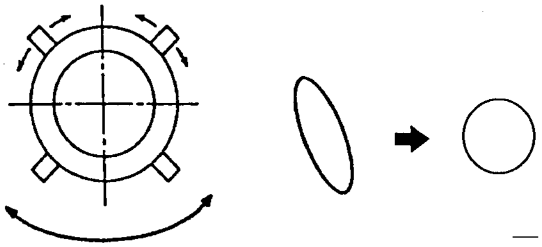
∗ Use the center dot:red and green
Use the vertical center and left end dot :blue



3-4. 4-POLE MAGNET ADJUSTMENT

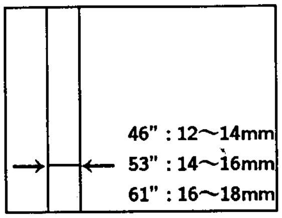
1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block clockwise (count clockwise:blue)from the just focus until the dot diameter becomes as shown below.
4. Adjust the 2-pole magnet to make the dot perfectly round.
5. Turn the green focus variable resistor to the just focus.
6. Adjust the red and blue dot in the same way.

∗ Use the center dot : red and green
Use the vertical center and left end dot : blue



3-5. DE-FOCUS ADJUSTMENT (BLUE)

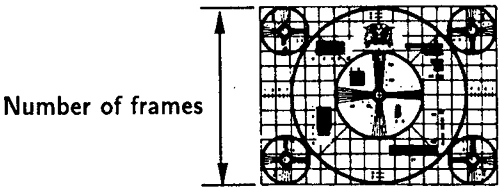
1. Input cross hatch signal.
2. Turn the blue focus variable resistor (VR) in the focus block counter clock wise so that thewidth of the left end vertical line becomes as shown below.



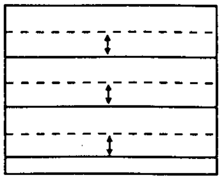
without flare

3-6. GREEN PICTURE ADJUSTMENTS

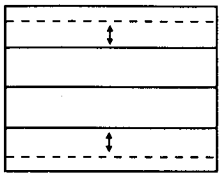
1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Turn RV913 and RV960, the vertical green linearity variable resistors (V.G LIN VRs) on the D-board, to obtain an optimum vertical linearity. Then turn RV911, the vertical green amplitube variable resistor (V.G SIZE VR) to set vertical amplitude to 11.7 flames.
   Note: The vertical position indicator of the monoscope signal must be positioned at the center by adjusting RV905, the vertical green center position variable resistor (V.G CENT VR) in advance.



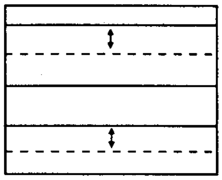
Monoscope signal



RV905 V.G CENT
(vertical position)

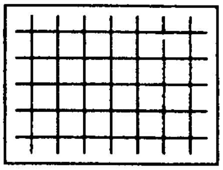


RV911 V.G SIZE
(vertical amplitude)



RV913 V.G LIN
(vertical linearity)

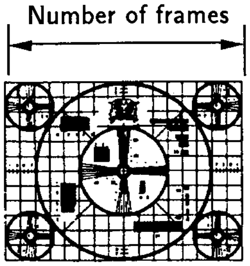
5. Verify that the horizontal lines on the top and bottom of cross-hatched area of the monoscope signal are horizontal and linear.



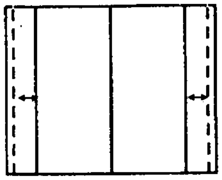
6. Turn RV916, RV964 and RV969, the horizontal green linearity variable resistors (H.G LIN VRs) on the D-board, to obtain an optimum horizontal linearity.

   Then turn RV908, the horizontal green amplitude variable resistor (H.G SIZE VR) to set horizontal amplitude to 15.6 frames.

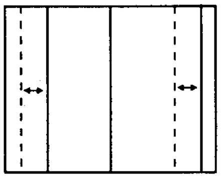
   Note: The horizontal position indicator of the monoscope signal must be positioned at the center by adjusting RV902, the horizontal green center position variable resistor (V.G CENT VR) in advance.



Monoscope signal



RV908 H.G SIZE
(horizontal position)



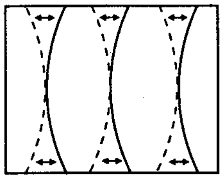
RV916 H.G LIN
(horizontal linearity)

7. Input cross hatch signal.
   Turn vertical green (V.G) and horizontal green (H.G) variable resistors (VRs) and make adjustments according to the following steps :

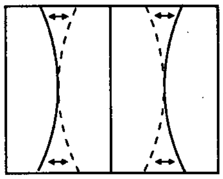
(Adjustment procedure)

1. [BOW] → [SKEW] → [CENT (center position)]
2. [PIN (pin warp)] → [SUB BOW] → [BOW]
3. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
4. [M.WAVE (middle sine wave warp)] → [WAVE-A (upper and lower sine wave warp)] → [WAVE-U (upper sine wave warp)]
   ※ For vertical (V) only.
5. [V-M.PIN (vertical middle pin warp)] → [V/WING (vertical wing warp)]
   ※ For vertical (V) only.
6. [H-M.PIN (horizontal middle pin warp)]
   ※ For horizontal (H) only.

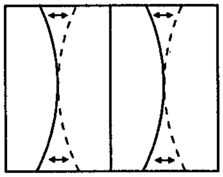
(Dot motion)



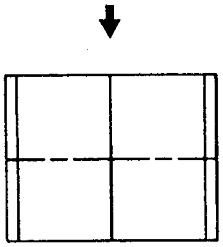
RV932 H.G BOW
(horizontal green bow)



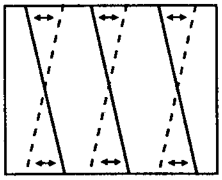
RV941 H.G PIN
(horizontal green pin warp)



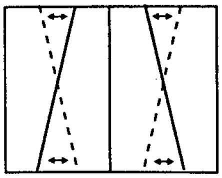
RV950 H.G SUB BOW
(horizontal green sub bow)



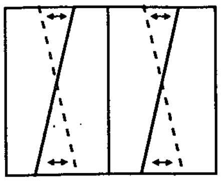
V.G BOW····················RV935
V.G PIN························RV938
V.G SUB BOW··············RV953



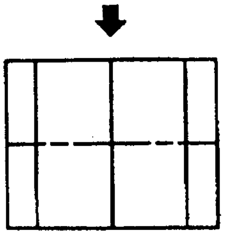
RV920 H.G SKEW
(horizontal green skew)



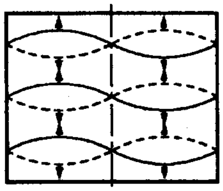
RV925 H.G KEYS
(horizontal green trapezoid)



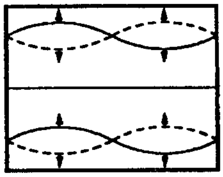
RV944 H.G SUB SKEW
(horizontal green sub skew)



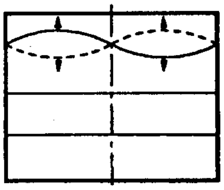
V.G SKEW······················RV923
V.G KEYS······················RV929
V.G SUB SKEW··············RV947



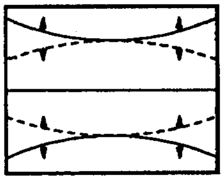
RV962 V-M-WAVE
(vertical middle sine wave warp)



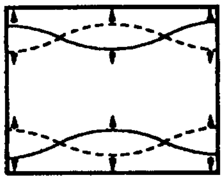
RV975 V-WAVE-A
(vertical upper and lower sine wave warp)



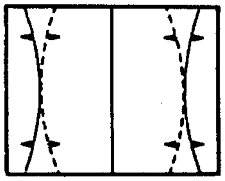
RV978 V-WAVE-U
(vertical upper sine wave warp)



RV980 V-M. PIN
(vertical middle pin warp)
※ Common in red, green, and blue



RV957 V/WING
(wing warp)
※ Common in red, green, and blue



RV956 H/M. PIN
(horizontal middle pin warp)

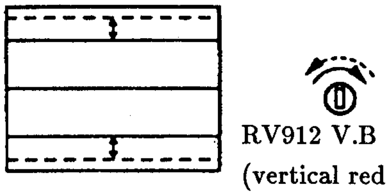
3-7. GREEN AND RED REGISTRATION ADJUSTMENTS

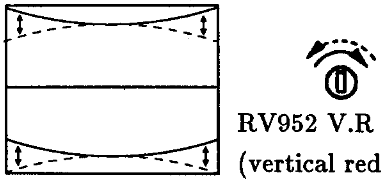
1. Input cross hatch signal.
2. Enter service mode. Select B OFF of SERVICE MODE to cut off blue output.
3. Turn the vertical red (V.R) and horizontal red (H.R) variable resistors (VRs) to adjust red picture convergence in relation to green picture according to the following steps :

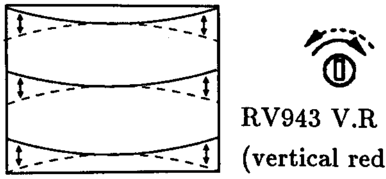
(Adjustment procedure)

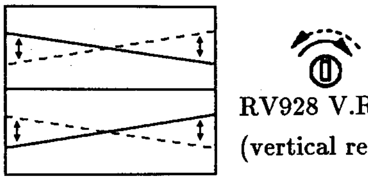
1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)]
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW] [H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] → [WAVE-A (upper and lower sine wave warp)] → [WAVE-U (upper sine wave warp)]

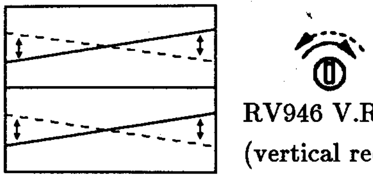
(Dot motion)

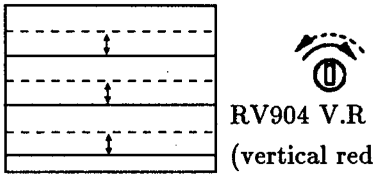

RV912 V.B SIZE
(vertical red amplitude)

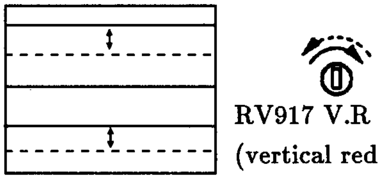

RV952 V.R SUB BOW
(vertical red sub bow)

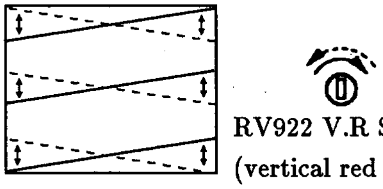

RV943 V.R BOW
(vertical red bow)


RV928 V.R KEYS
(vertical red trapezoid)


RV946 V.R SUB SKEW
(vertical red sub skew)


RV904 V.R CENT
(vertical red center position)


RV917 V.R LIN
(vertical red linearity)


RV922 V.R SKEW
(vertical red skew)

H.R LIN	RV915
H.R SIZE	RV907
H.R CENT	RV901
H.R BOW	RV931
H.R SKEW	RV919
H.R PIN	RV940
H.R KEYS	RV926
H.R SUB BOW	RV949
H.R SUB SKEW	RV943
V-M-WAVE	RV973
V-WAVE-A	RV976
V-WAVE-U	RV979
V-M.PIN	RV980
V/WING	RV957
H/M.PIN	RV956

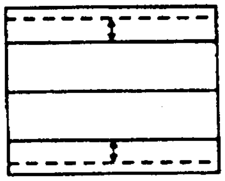
3-8. GREEN AND BLUE REGISTRATION ADJUSTMENTS

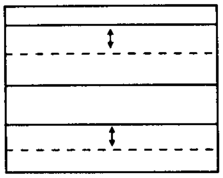
1. Input cross hatch signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
3. Turn the vertical blue (V.B) and horizontal blue (H.B) variable resistors (VRs) to adjust blue picture convergence in relation to green picture according to the following steps :

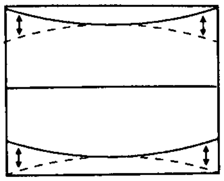
(Adjustment procedure)

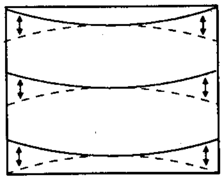
1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)] →
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW] [H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] → [WAVE-A (upper and lower sine wave warp)] → [WAVE-U (upper sine wave warp)] →

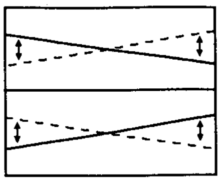
(Dot motion)

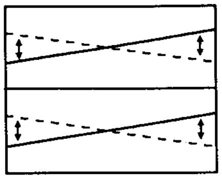

RV912 V.B SIZE
(vertical blue amplitude)

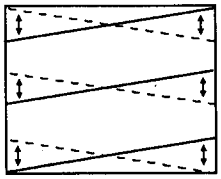

RV918 V.B LIN
(vertical blue linearity)

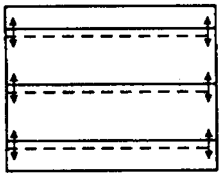

RV954 V.B SUB BOW
(horizontal blue sub bow)

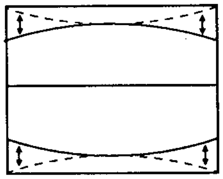

RV936 V.B BOW
(vertical blue bow)

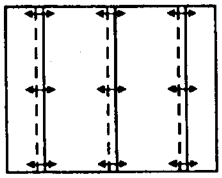

RV930 V.B KEYS
(vertical blue trapezoid)

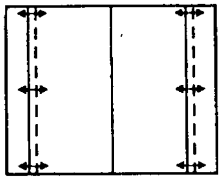

RV948 V.B SUB SKEW
(vertical blue sub skew)

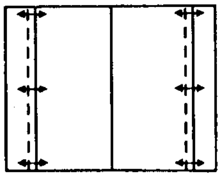

RV924 V.B SKEW
(vertical blue skew)

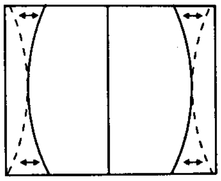

RV906 V.B CENT
(vertical blue center position)

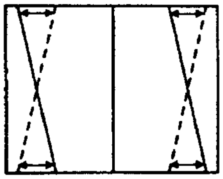

RV939 V.B PIN
(vertical blue pin warp)


RV903 H.B CENT
(vertical blue center position)

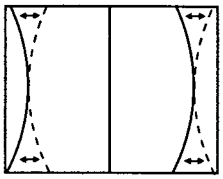

RV909 H.B SIZE
(horizontal blue amplitude)


RV914 H.B LIN
(horizontal blue linearity)

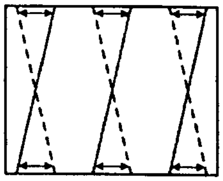

RV942 H.B PIN
(horizontal blue pin warp)



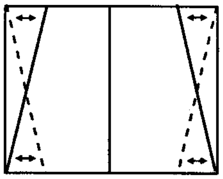
RV954 H.B SUB SKEW
(horizontal blue sub skew)



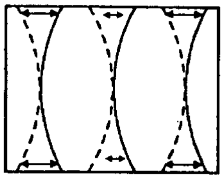
RV951 H.B SUB BOW
(horizontal blue sub bow)



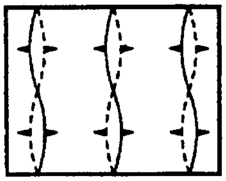
RV921 H.B SKEW
(horizontal blue skew)



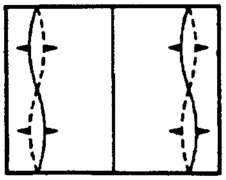
RV927 H.B KEYS
(horizontal blue trapezoid)



RV933 H.B BOW
(horizontal blue bow)



RV981
※ Common in red, green, and blue



RV982
※ Common in red, green, and blue

H/M PIN	RV958
M.WAVE	RV961
WAVE-A	RV974
WAVE-U	RV977

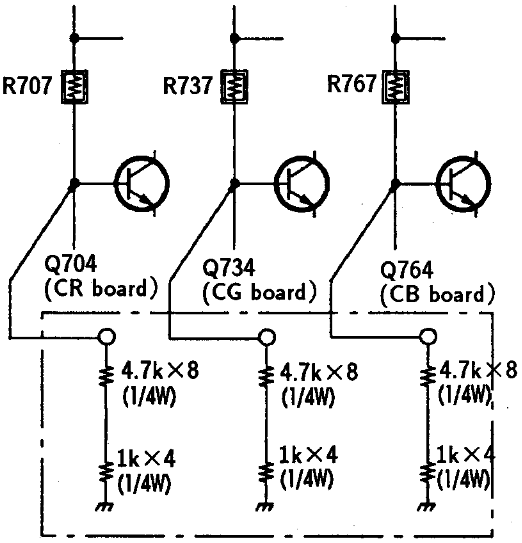
3-9. REGISTRATION CHECK

1. Out put red, blue, and green.
2. Out put cross hatch and monoscope signals to check registration. Also check focus.

3-10. WHITE BALANCE ADJUSTMENTS

1) Screen adjustment

1. Input white signal.
2. Remove connectors CR-15, CG-16, and CB-17.
3. Fit jigs between the ground and R707, R737, and R767.


R707
R737
R767
Q704
(CR board)
Q734
(CG board)
Q764
(CB board)
4.7k×8
(1/4W)
4.7k×8
(1/4W)
4.7k×8
(1/4W)
1k×4
(1/4W)
1k×4
(1/4W)
1k×4
(1/4W)

※ Resistors in each jig are connected serial.

4. Turn the RGB (red, green, and blue) screen variable resistors in the focus block to make the flyback line faint. Stop before the line completely disappears.
5. Insert connectors CR-15, CG-16, and CB-17.

2) White balance adjustments (SBRT, GAMP, BAMP, GCUT, BCUT)

1. Input monoscope signal and enter service mode.
2. Select the picture quality adjustment from the menu and set PICTURE minimum.
3. Use the commander to adjust SBRT so that 10 IRE of the monoscope pattern becomes faintly luminous.
4. Input white signal.
5. Set PICTURE minimum. Adjust item GCUT and BCUT to obtain an optimum white balance.
6. Set PICTURE maximum. Adjust GAMP and BAMP to obtain an optimum white balance.
7. Repeat white balance adjustment alternating PICTURE setting at the minimum and maximum.

MEMO

SECTION 4

SAFETY RELATED ADJUSTMENTS

4-1. SAFETY RELATED ADJUSTMENTS

When replacing the following components, make the HV REGULATOR adjustments (on the N board)

◪……HV block, IC803, IC805, D805, D807, C817, C818, C821, C836, C837, R824, R825, R827, R828, R834,R835, R836, R864, R865, R866, R902

When replacing the following components, make the HV HOLD DOWN adjustments (on the N board)

◪……HV block, IC803, IC804, Q804, D806, D808, C809, C819, C820, C822, C823, C850, R807, R826, R829, R832, R833, R837, R838, R839, R840, R841, R892, R893, R900, R901

When replacing the following components, make the BEAM CURRENT PROTECTOR adjustments (on the N board)

◪……① IC802, Q805, Q807, D811, D812,C810, C824, C825, C826, C827, C831, R810, R843, R844, R847, R848, R849, R850, R851, R852, R853, R854, R881

② IC804, Q804, Q808, D808, D809, C809, C828,C829, C830, C831, R807, R839, R840, R841,R847, R848, R849, R850, R851, R852, R855, R856, R857, R881

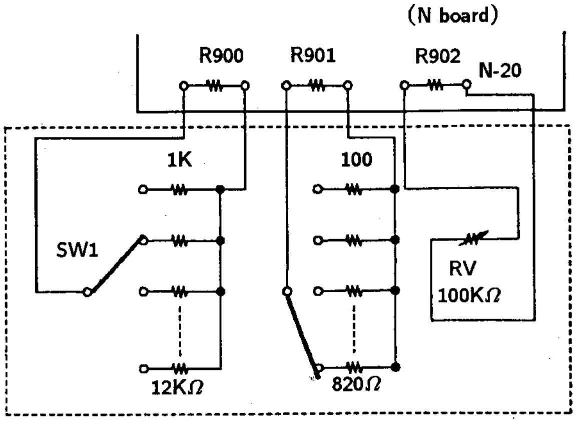
When replacing the following components, make the OVP CIRCUIT adjustments (on the G board)

◪……Q618, Q621, D628, C634, R639, R649, R652, R655, R656

— Checking with static voltmeter —

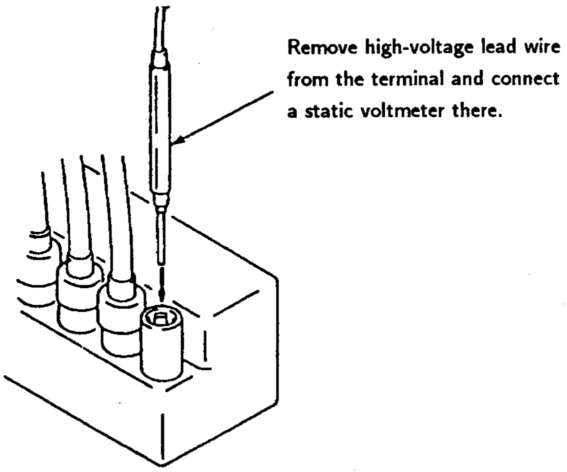
HV HOLD DOWN ADJUSTMENTS (⧓R900, R901)

1. Verify that the power switch is off.
2. Connect the HV hold down adjustment resistance jig to the N20 connector on the N board.



(Adjustment jig)

3. Connect an external variable resistor (RV) to R 902 of the N board.
4. Remove the cap off from the unused terminal of the high voltage block. Connect a static voltmeter to the terminal.

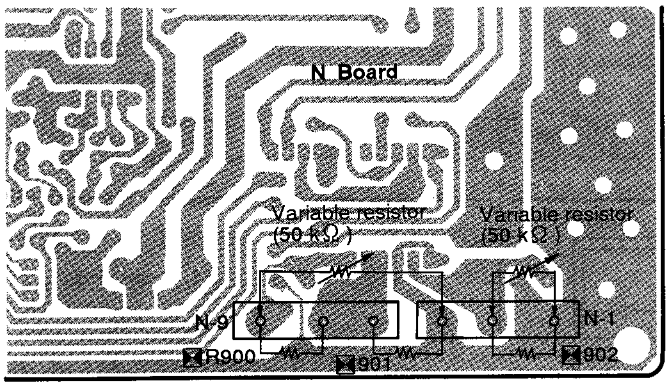

Remove high-voltage lead wire from the terminal and connect a static voltmeter there.

5. Receive 120 VAC power voltage and monoscope pattern signal. Maximize PICTURE and BRIGHTNESS.
6. Use the external variable resistor of the hold down adjustment jig to make the static voltmeter to read 33.50 ± 0.50kVDC.
7. Raise resistances with the jig until the HV hold down circuit is activated. Read the figures then, and mount resistance of the measured figures to R900 and R901.
   R900 : Must be 1kΩ to 12kΩ
   R901 : Must be Jw 100Ω to 820Ω
8. Turn on power again. Vary external variable resistance and confirm that the HV hold down circuit is activated at the reated value, 33.50± 0.50kV.

— Checking without static voltmeter —

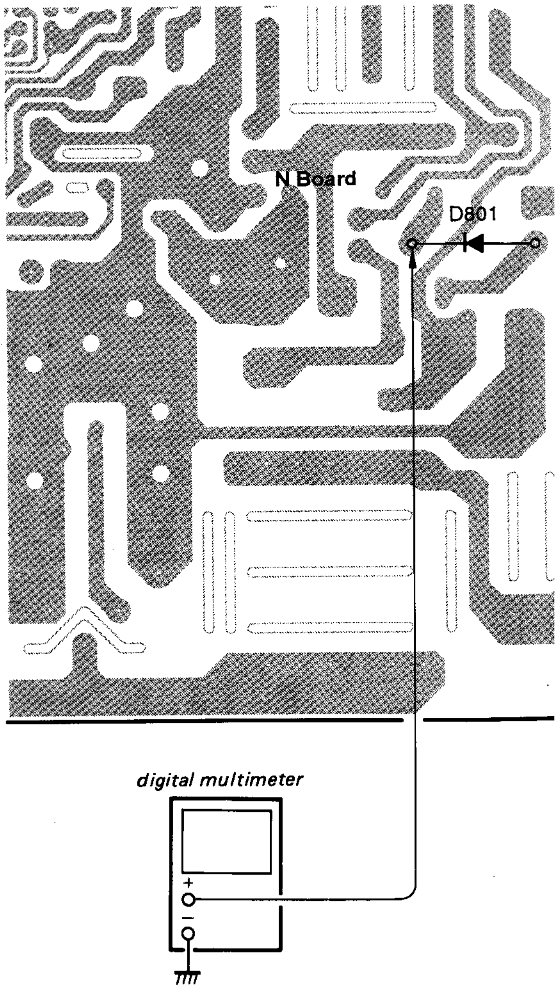
HV HOLD DOWN ADJUSTMENT (⊠R900, ⊠R901)

1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R902 from the N board. Connect a variable resistor of 50kΩ on each end, and minimize the resistance.
3. Remove R900 and R901 from the N board. Connect a variable resistor of 50kΩ on each end, and minimize the resistance.
4. Connect a digital voltmeter between the D801 cathode and chassis ground of the N board.
5. Turn on the power switch. Adjust the variable resistors connected to the R902 of the N board to make the digital multimeter to read 145.0VDC.
6. Adjust the variable resistors connected to R900 and R901 on the N board so as to activate the HV hold down circuit and turn off the display.
7. Read the variable resistors connected to R900 and R901 and mount fixed resistors of measured resistance to the terminals.
   Note : Select fixed resistance from the following ranges.
   R900 : 1kΩ to 12kΩ
   R901 : Jw 100Ω to 820Ω
8. Maximize resistance of the variable resistor connected to R902 of the N board and turn on power.
9. Vary variable resistance at R902. Confirm that the HV hold down circuit is activated and the display is turned off when voltage reads 134±1.0V.



HV REGULATOR ADJUSTMENT (⊠R902)

1. Receive all-white signal. Maximize PICTURE a BRIGHTNESS.
2. Connect a variable resistor of 50kΩ on each end R902 of the N board. Maximize resistance.
3. Connect a digital voltmeter between the D8 cathode and the chassis of the N board.
4. Turn on power. Adjust the variable resistor so th the digital multimeter reads 135.0V±1.0V.
5. Read the variable resistance then.
6. Mount a fixed resistor of the measured resistance R902.
   Note : R902 : Must be 2.2kΩ to 27kΩ
7. Turn on power again. Confirm that the digi multimeter reads 135.0V±1.0V.



SECTION 5
CIRCUIT ADJUSTMENTS

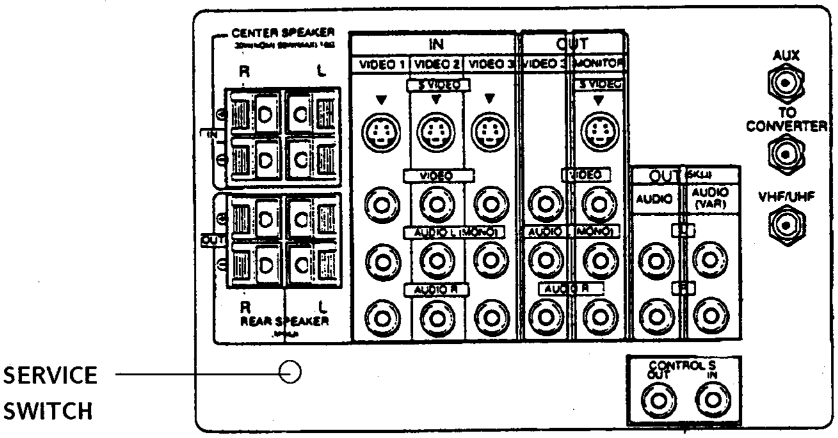
5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use of Remote Commander (RM-Y114A) can be performed circuit adjustments about this model.

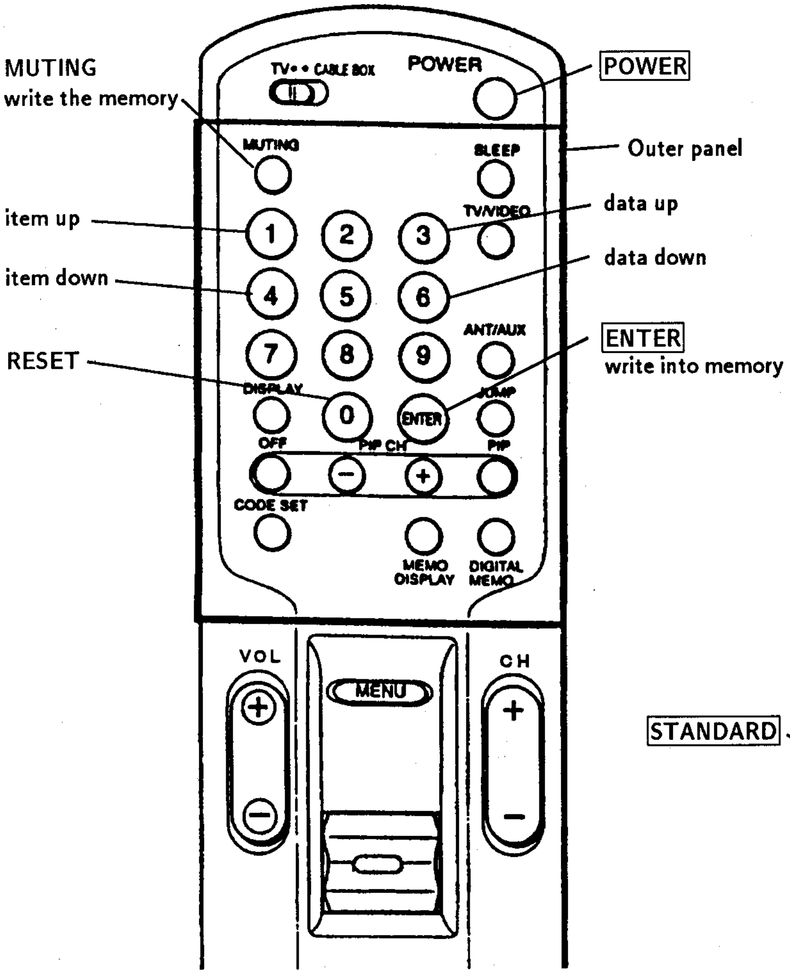
NOTE : Test Equipment Required.
1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC

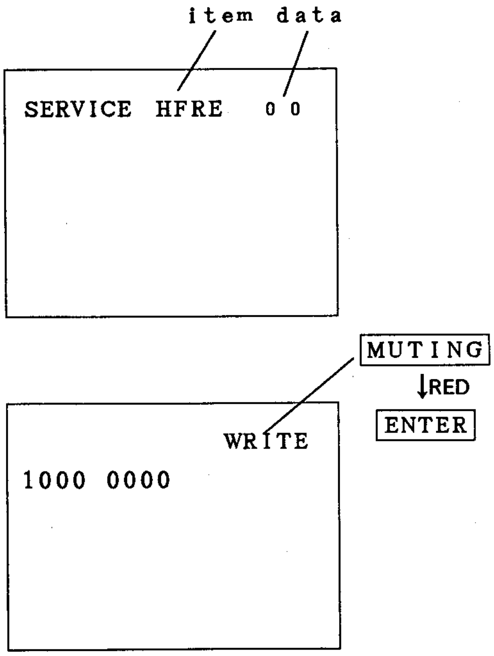
1. METHOD OF SETTING THE SERVICE MODE

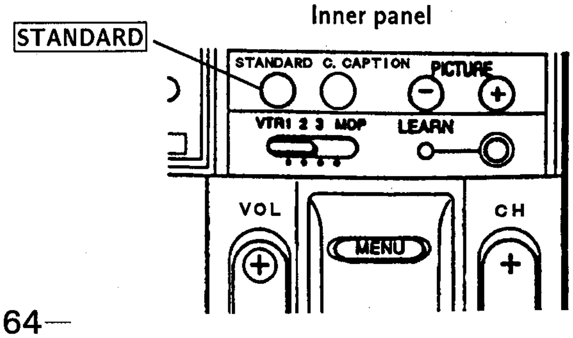
1) Press POWER button on the Remote Commander while pressing switch on the rear of the set.


CENTER SPEAKER
R
L
IN
OUT
R
L
REAR SPEAKER
IN
OUT
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 3
MONITOR
S VIDEO
S VIDEO
VIDEO
VIDEO
AUDIO L (MONO)
AUDIO
(MONO)
AUDIO R
AUDIO R
OUT
AUDIO
AUDIO (VAR)
AUX
TO CONVERTER
VHF/UHF
CONTROL S
OUT
IN
SERVICE SWITCH

2. ADJUST BUTTONS AND INDICATOR


MUTING
write the memory
item up
item down
RESET
POWER
Outer panel
data up
data down
ENTER
write into memory
TV• • CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
7
8
9
ANT/AUX
DISPLAY
0
ENTER
JUMP
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
VOL
CH
MENU


item
data
SERVICE HFRE 0 0
MUTING
RED
ENTER
WRITE
1000 0000


Inner panel
STANDARD
STANDARD
C. CAPTION
PICTURE
VTR1 2 3 MDP
LEARN
VOL
CH
MENU

3. AN ITEM OF ADJUSTMENT

ITEM	REFERENCE DATA	NAME REGIST	
AFC	0	VP	AFC 1.0
HFRE	74	VP	H. FREQUENCE
VFRE	16	VP	V. FREQUENCE
HPOS	5	VP	H. PHASE
GAMP	25	VP	GREEN AMP.
BAMP	26	VP	BLUE AMP.
GCUT	9	VP	GREEN CUT OFF.
BCUT	6	VP	BLUE CUT OFF
SPIX	40	VP	PICTURE
SHUE	29	VP	HUE
SCOL	28	VP	COLOR
SBRT	11	VP	BRIGHT
RGBP	21	VP	RGB PICTURE
SHAR	13		SHARPNESS
DISP	21		OUTPUT
VSMO	0	VP	VSMO
REF	1	VP	REF 1.0
ROFF	1	VP	OFF NR
GOFF	1	VP	OFF NG
BOFF	1	VP	OFF NB
ABLM	1	VP	ABLM
DRGB	0	VP	D RGB
TEST	0	AP	T
MPX	7	AP	ATT
FILO	31	AP	I 1
DEEM	7	AP	I 2
STEV	31	AP	OSC 1
SAPV	31	AP	OSC 2
PILO	7	AP	PILOT
SEP	31	AP	WIDE BAND
VD	7	AP	SPECTRAL
LVOL	0	AP	VOLUME-L
RVOL	0	AP	VOLUME-R
BASS	10	AP	BASS
TRE	8	AP	TREBLE
PHPO	32	PI	READ DELAY H
PVPO	8	PI	READ DELAY V
PLEV	6	PI	PICTURE LEVEL
PFCO	7	PI	FRAME COLOR
NRLE	31		NR LEVEL
DSPP	43		
SHAD	1	PJ	SHADON
VMSW	1	PJ	RS HAD
SCUT	16	PJ	SHAD CUT OFF

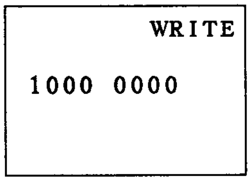
4. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press POWER button on the commander) in the next place, press POWER button again, hereupon it becomes TV mode.

5. METHOD OF WRITE FOR MEMORY

1) Set to Service Mode.
2) Press 1 (UP) and 4 (DOWN), select an item of adjustments.
3) Press MUTING button indicate WRITE (RED) on screen.
4) Press ENTER button to write for memory.

6. MEMORY WRITE CONFIRMATION METHOD



WRITE

1000 0000

1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
2) Turn the power switch ON and set to Service Mode.
3) Call the adjusted items again, confirm they were adjusted.

5-2. A BOARD ADJUSTMENTS

RF AGC ADJUSTMENT(IF BLOCK VR)

1) Input a color-bar signal.
2) Adjust AGC VR of TU 101 so that snow noise and cross-modulation disappear from the picture.
3) Confirm them at every channel.

H.FREQUENCY ADJUSTMENT (HFRE)

1) Set to Service Mode.
2) Input a color-bar signal.
3) Connect a frequency counter to pin③ of A-10 connector.
4) Call the item of AFC, set to 3 level (free run).
5) Select HFRE with $\boxed{1}$ and $\boxed{4}$.
6) Adjust $\boxed{3}$ and $\boxed{6}$ to the 15735 ± 60 Hz level.
7) Call the item of AFC again, adjust the level" 01 ".
8) Write into the memory by pressing $\boxed{\text{MUTING}}$ → then $\boxed{\text{ENTER}}$.

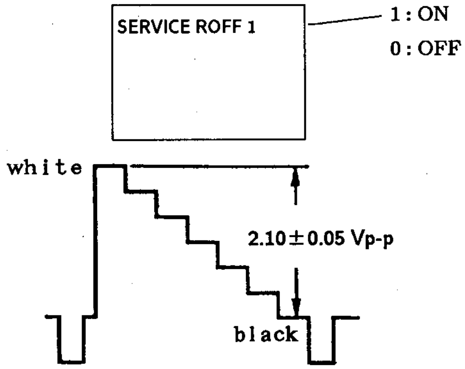
V.FREQUENCY ADJUSTMENT (VFRE)

1) Set the Service Mode.
2) Input an off-air signal (VIDEO IN → no signal).
3) Connect the frequency counter across connector ⑬pin of E 1-1 connector and ground.
4) Select VFRE with $\boxed{1}$ and $\boxed{4}$.
5) Adjust $\boxed{3}$ and $\boxed{6}$ to the 56 ±0.5 Hz.
6) Write the memory by pressing $\boxed{\text{MUTING}}$ → then $\boxed{\text{ENTER}}$.

SUB CONTRAST ADJUSTMENT (SPIX)

1) Set to Service Mode.
2) Input a color-bar signal. (75 IRE)
3) Set the conditions as follows.

PICTURE	········· MAX
COLOR	········· MIN
BRIGHTNESS	········· MIN
TRINITONE	········· LOW
R OFF	········· ON
G OFF	········· OFF
B OFF	········· OFF

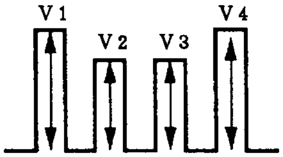


4) Connect an oscilloscope to ⑳pin of E1-1 connector on A board and ground.
5) Adjust $\boxed{3}$ and $\boxed{6}$ to the 2.10 ± 0.05Vp-p level by select-ing SPIX with $\boxed{1}$ and $\boxed{4}$.
6) Write the memory by pressing $\boxed{\text{MUTING}}$ → then $\boxed{\text{ENTER}}$.
7) Return the following back to normal after adjustment.

G OFF	········· ON
B OFF	········· ON
COLOR	········· CENTER
BRIGHTNESS	········· CENTER
TRINITONE	········· HIGH
PICTURE	········· 80%

SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)

1) Input a color-bar signal.
2) Press STANDARD to normal.
3) Set to Service Mode.
4) Connect an oscilloscope to pin㉒ of E1-1 connector on A board and ground.
5) Adjust 3 and 4 to the V1=V4 and V2=V3 by select to SHUE and SCOL with 1 and 4. Lower the data 4 steps from this point.

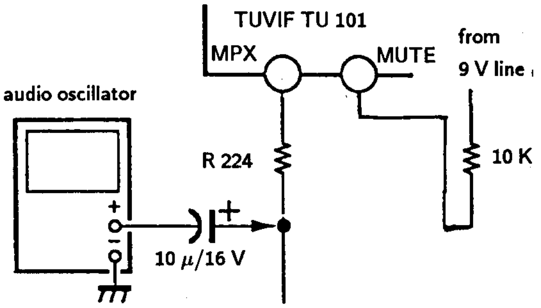


6) Write into the memory by pressing MUTING →then ENTER .

FILTER ADJUSTMENT (MPX, FILO)

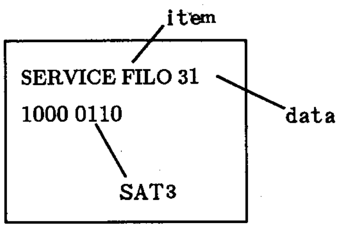
1) Set to Service Mode.
2) Select to TEST with 1 and 4, set the data to "1". Then select MPX and change data to "8" .
3) Connect an audio oscillator to R224 using a capacitor (10μ F/16V), set frequency to 62.936 kHz±0.1 kHz.

And then, through the 10kΩ resistor, feed 9.0V into the mute of TUVIF TU 101.


TUVIF TU 101
MPX
MUTE
from
9 V line
audio oscillator
R 224
10 K
+
−
10 μ/16 V

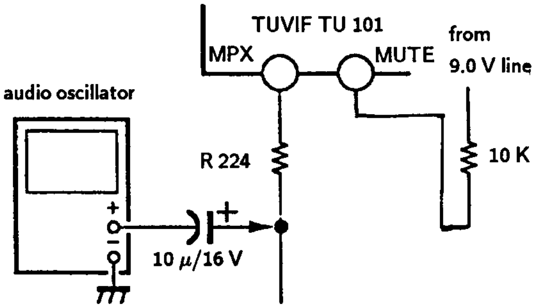
V 4 fh : SINE-WAVE 62.936 KHz±0.1 KHz
LEVEL 3.0 Vp-p

4) Make the data "00" by selecting FILO with 1 and 4 And then, send up the data gradually by pressing 6 . Set the data to D1 before SAT3 changing to 1 from 0.
5) Send up the data gradually. Set data D2 when SAT3 changes 0 from 1.
6) Adjust the data of FILO to $\frac{D1+D2}{2}$.
7) Write into the memory by pressing MUTING → then ENTER .


item
SERVICE FILO 31
1000 0110
data
SAT3

ST VCO ADJUSTMENT (MPX, STEV)

1) Set to Service Mode.
2) Select TEST with 1 and 4 , set the data to "1". And then press MTS to MONO.
3) Select MPX, set the data "8" .
4) Connect an audio oscillator to R 224 using electrolytic capacitor (10μ F/16V) and appply the frequency V_{ST}. Then, apply DC voltage to mute of TUVIF TU 101 using 10kΩ connect to 9.0 V line.


TUVIF TU 101
MPX
MUTE
from
9.0 V line
audio oscillator
R 224
10 K
+
−
10 μ/16 V

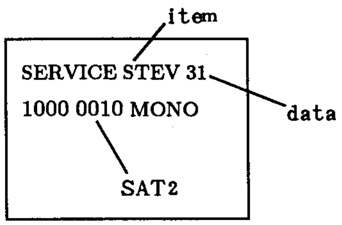
Vfh : SINE-WAVE 15.734 KHz±0.1 KHz
LEVEL 0.28 Vp-p

5) Select STEV with 1 and 4, set the data to "00" with 6. And then, send up the data gradually. Set the data to D1 before SAT2 changes from 0 to 1.

6) Send up data gradually, set the data to D2 when SAT2 changes 1 from 0.

7) Adjust the data of STEV to (D 1+D 2)/2.

8) Write into the memory by pressing MUTING → then ENTER .



MPX IN LEVEL ADJUSTMENT (MPX)

1) Set to Service Mode.

2) Select TEST with 1 and 4, set the data to "0" with 6. And then press MTS to MONO.

3) Select MPX with 1 and 4, set the data to "8" with 3 and 6.

4) Write into the memory by pressing MUTING → then ENTER .

PILOT CANCEL ADJUSTMENT (PILO)

1) Set to the Service Mode.

2) Select PILO with 1 and 4, set the data to "8" with 3 and 6.

3) Write into the memory by pressing MUTING → then ENTER .

SAP VCO f_0 ADJUSTMENT (SAPV)

1) Set to Service Mode.

2) Input a stereo broadcast signal with SAP.

3) Select TEST with 1 and 4, set the data to "0" . And then, press MTS to MAIN.

4) Connect a digital multimeter to TP-1(DBX). This voltage reading will equal V 1.

5) Press MTS to SAP and this voltage will equal V 2.

6) Select SAPV with 1 and 4, adjust 3 and 6 so that V 2=V 1±0.03 VDC.

7) Write the memory by MUTING → ENTER .

SEPARATION ADJUSTMENT (SEP)

1) Set to Service Mode.

2) Press MTS to MAIN and receive a monoral broadcast signal.

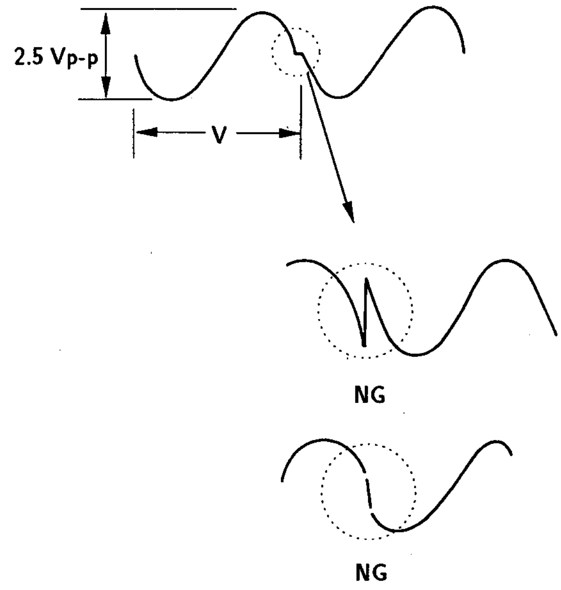
In the next step, receive a stereo broadcast signal.

3) Select SEP and VD with 1 and 4, adjust 3 and 6 so that a clear stereo sound is effected.

5-3. DS BOARD ADJUSTMENTS

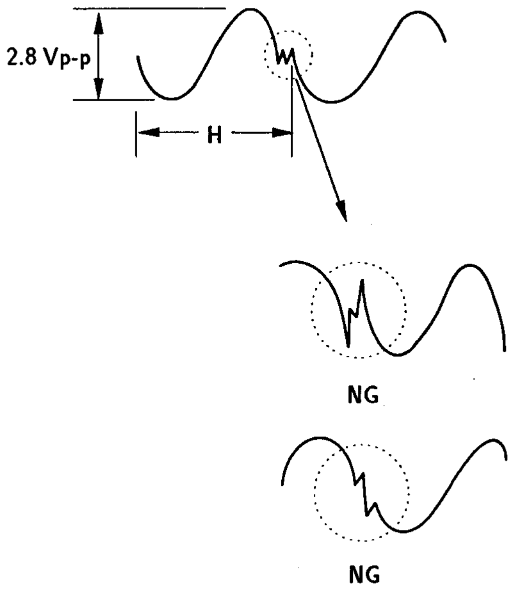
V. 3 WAVE ADJUSTMENT (RV983)

1) Input a color-bar signal.
2) Connect an oscilloscope IC1712 Pin⑦ of DS board ground.
3) Adjust RV983 as shown the following figure.

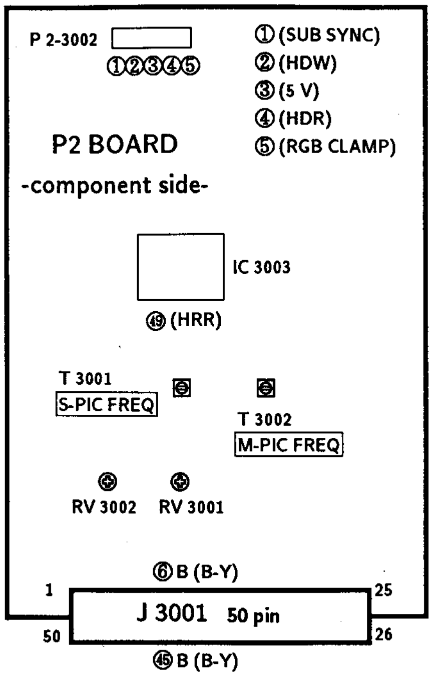

2.5 Vp-p
V
NG
NG

H. 3 WAVE ADJUSTMENT (RV984)

1) Input a color-bar signal.
2) Connect an oscilloscope IC1712 Pin① of DS board ground.
3) Adjust RV984 as shown the following figure.


2.8 Vp-p
H
NG
NG

5-4. P2 BOARD ADJUSTMENTS


P 2-3002
①②③④⑤
①(SUB SYNC)
②(HDW)
③(5 V)
④(HDR)
⑤(RGB CLAMP)
P2 BOARD
-component side-
IC 3003
㊾(HRR)
T 3001
S-PIC FREQ
T 3002
M-PIC FREQ
RV 3002
RV 3001
⑥B (B-Y)
1
25
J 3001 50 pin
50
26
㊺B (B-Y)

MAIN-PICTURE FREQUENCY (T 3002)

1) Set PIP mode.
2) Connect a frequency counten to Pin 11 (HDW) of J 3001.
3) Connect a frequency counten to Pin ㊾ or ㊿ (HRR) of IC 3003 or Pin 5 (RGB CLAMP) of P 2-3002.
4) Short the circuit between Pin 4 (HDR) of P 2-3002 and Pin 3 (5 V) of P 2-3002.
5) Turn T 3002 CLK (P) for the following frequency at Pin ㊾ or ㊿ (HRR) of IC 3003 or at Pin 5 (RGB CLAMP) of P 2-3002.

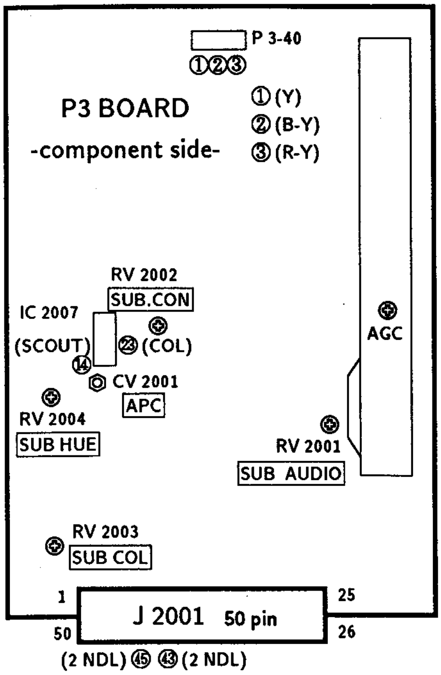
15.734 kHz ± 10 Hz

SUB-PICTURE FREQUENCY (T 3001)

1) Set PIP mode.
2) Connect a frequency counten to Pin 11 (HDW) of J 3001.
3) Connect a frequency counten to Pin ㊾ or ㊿ (HRR) of IC 3003 or Pin 5 (RGB CLAMP) of P 2-3002.
4) Short the circuit between Pin 1 (SUB SYNC) of P 2-3002 and Pin 3 (5 V) of P 2-3002.
5) Turn T 3001 CLK (C) for the following frequency at Pin 2 (HDW) of P 2-3002.

15.734 kHz ± 10 Hz

5-5. P3 BOARD ADJUSTMENTS


P 3-40
①②③
P3 BOARD
-component side-
①(Y)
②(B-Y)
③(R-Y)
RV 2002
SUB.CON
IC 2007
(SCOUT)
⑭
㉓(COL)
CV 2001
APC
RV 2004
SUB HUE
AGC
RV 2001
SUB AUDIO
RV 2003
SUB COL
1
25
J 2001 50 pin
50
26
(2 NDL) ㊺ ㊸ (2 NDL)

RF AGC ADJUSTMENT(IF BLOCK VR)

1) Input a color-bar signal.
2) Set to PICTURE IN PICTURE mode.
3) Adjust AGC VR of TU 2001 so that snow noise and cross-modulation disappear from the picture.
4) Confirm them at every channel.

SUB PICTURE SOUND VOLUME LEVEL (SUB AUDIO) ADJUSTMENT(RV2001)

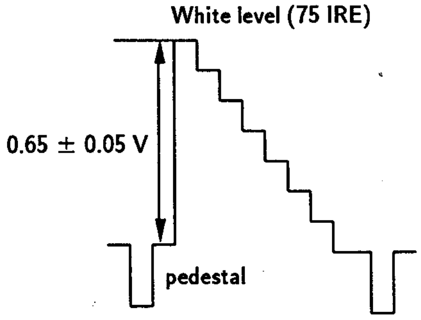
1) Receine an audio signal of 400 Hz. (100% mod.)
2) Adjust RV 2001 for the following level at Pin 43 (2 NDR) or Pin 45 (2 NDL) of J 2001.

500 mVrms ± 2 dB

SUB CONT ADJUSTMENT (RV2002)

1) Obtain the color bar signal on the sub-screen.
2) Obsene at Pin 1 (Y OUT) of P3-42 on an oscilloscope.
Odjust RV2002 for the following lenel between the white level and pedestal one.

0.65 ± 0.05 Vp-p


White level (75 IRE)
0.65 ± 0.05 V
pedestal

SUB COLOR ADJUSTMENT(RV 2003)

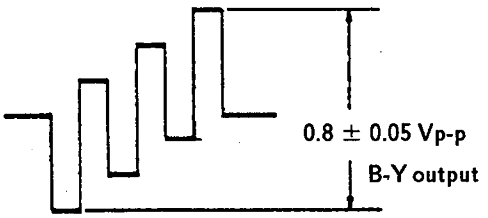
1) Obtain the color bar signal on the sub-screen in the mode of PIP size 1/4.
2) Reset color.
3) Adjust RV 2003 for the following level, obseruing an oscilloscope connectod to Pin 2 (B-Y) of P3-40 (Fig. 1)

0.8 ± 0.05 Vp-p (B-Y)

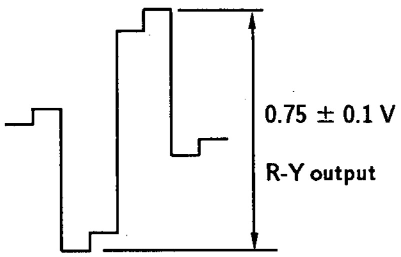
4) Adjust RV 2003 for the following level, obseruing an oscilloscope connectod to Pin 3 (R-Y) of P3-40 (Fig. 2)

0.75 ± 0.1 Vp-p (R-Y)

5) Adjust traxking between sub color and sub hue.


0.8 ± 0.05 Vp-p
B-Y output

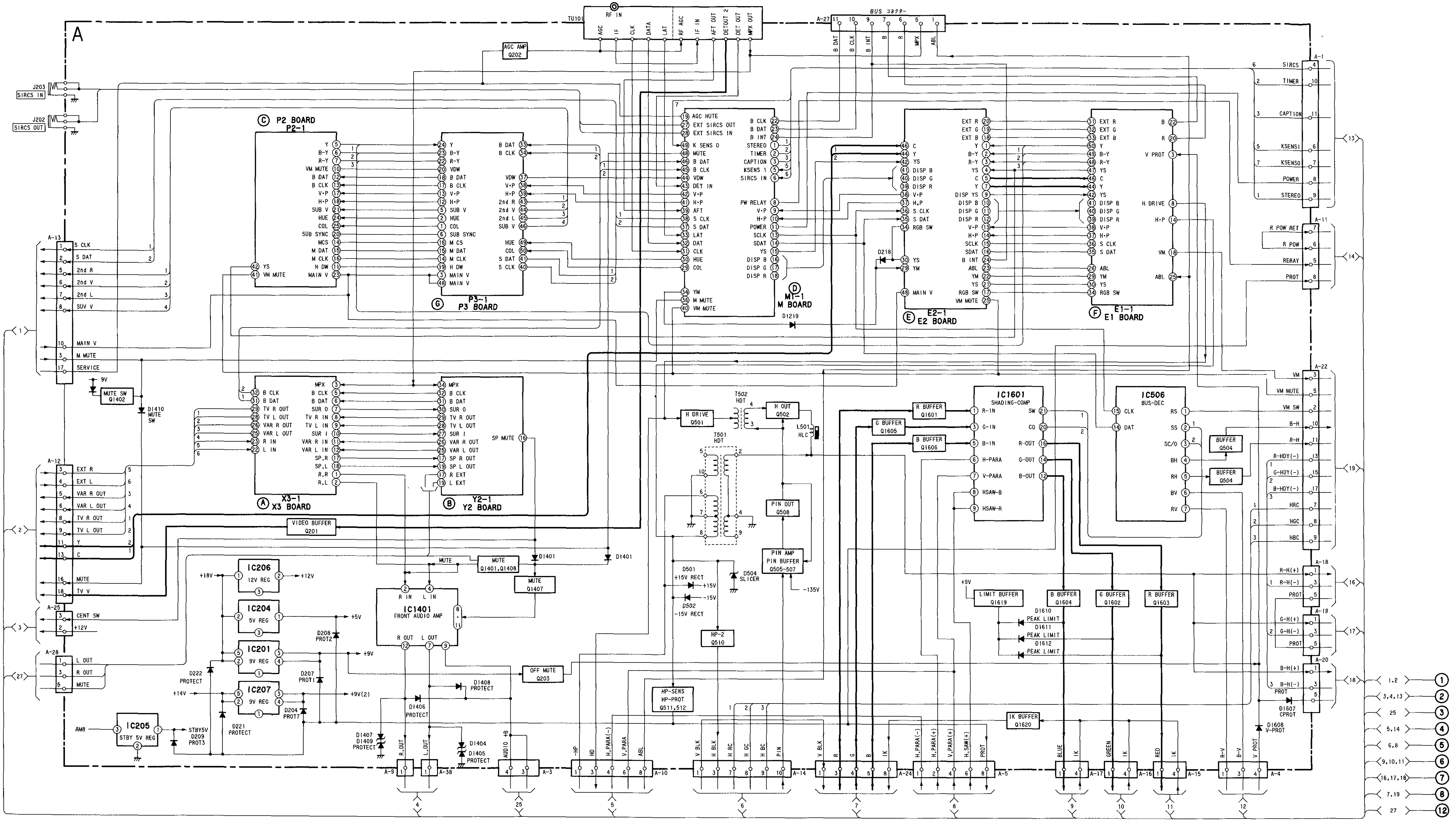
(Fig. 1)

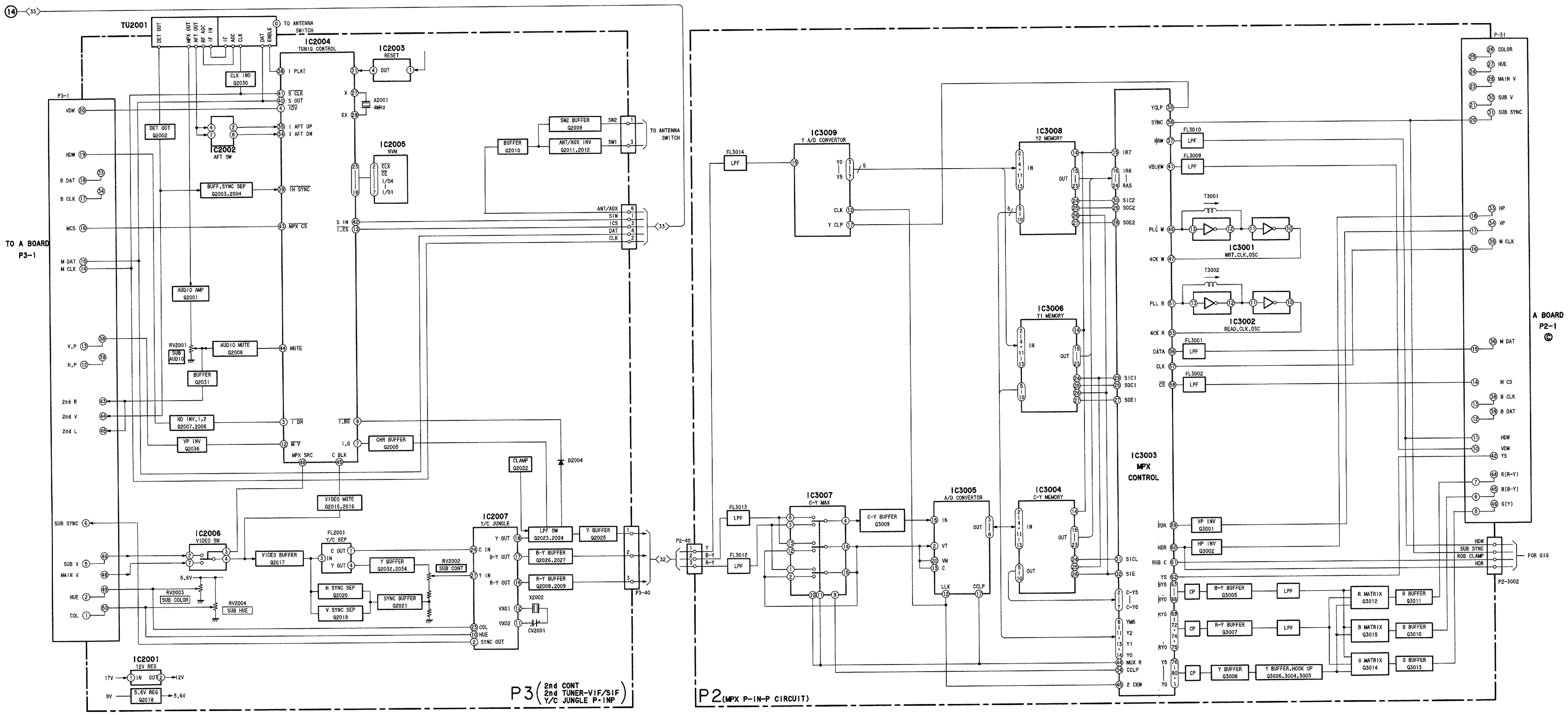

0.75 ± 0.1 V
R-Y output

(Fig. 2)

SECTION 6
DIAGRAMS

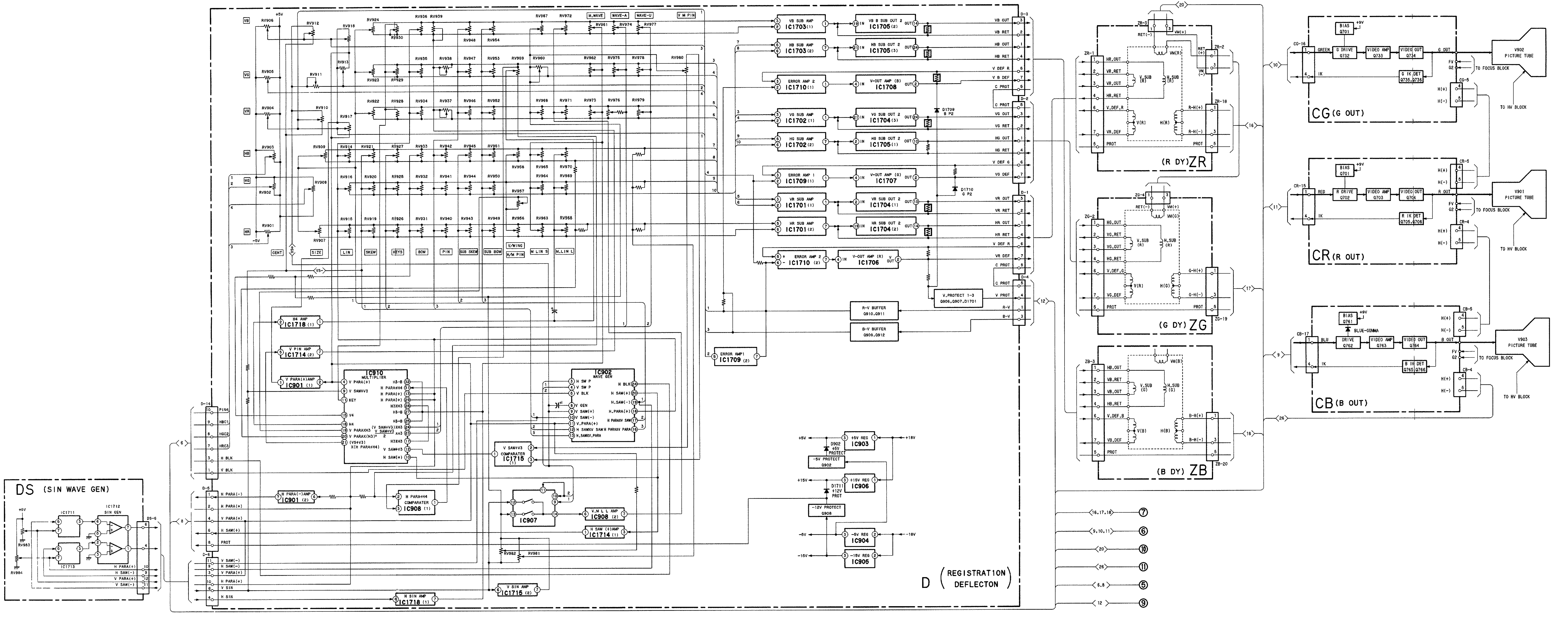
6-1. BLOCK DIAGRAMS


A
TU101
RF IN
AGC
IF
CLK
DATA
LAT
RF AGC
IF IN
AFT OUT
DETOUT 2
DET OUT
MPX OUT
AGC AMP
Q202
BUS コネクター
A-27
B DAT
B CLK
B INT
B
R
MPX
ABL
J203
SIRCS IN
J202
SIRCS OUT
C P2 BOARD
P2-1
G P3-1
P3 BOARD
D M1-1
M BOARD
E E2-1
E2 BOARD
F E1-1
E1 BOARD
A X3-1
X3 BOARD
B Y2-1
Y2 BOARD
AGC MUTE
EXT SIRCS OUT
EXT SIRCS IN
K SENS 0
MUTE
B DAT
B CLK
VDW
DET IN
V·P
H·P
AFT
S CLK
S DAT
LAT
DAT
CLK
HUE
COL
YM
M MUTE
VM MUTE
B INT
STEREO
TIMER
CAPTION
KSENS 1
SIRCS IN
PW RELAY
POWER
SCLK
SDAT
YS
DISP B
DISP G
DISP R
D1219
D218
EXT R
EXT G
EXT B
Y
B-Y
R-Y
C
DISP YS
RGB SW
MAIN V
ABL
V PROT
H DRIVE
VM
SIRCS
TIMER
CAPTION
KSENS1
KSENS0
POWER
STEREO
A-1
A-11
R POW RET
R POW
RERAY
PROT
A-13
S CLK
S DAT
2nd R
2nd V
2nd L
SUV V
MAIN V
M MUTE
SERVICE
9V
MUTE SW
Q1402
D1410
MUTE SW
A-12
EXT R
EXT L
VAR R OUT
VAR L OUT
TV R OUT
TV L OUT
Y
C
MUTE
TV V
A-25
CENT SW
+12V
A-28
L OUT
R OUT
MUTE
MPX
B CLK
B DAT
SUR O
TV R OUT
TV L OUT
VAR R OUT
VAR L OUT
R IN
L IN
SUR I
SP R OUT
SP L OUT
R EXT
L EXT
SP MUTE
VIDEO BUFFER
Q201
MUTE
Q1401,Q1408
Q1407
D1401
IC206
12V REG
+18V
+12V
IC204
5V REG
+5V
IC201
9V REG
+9V
IC207
9V REG
+9V(2)
+14V
D222
PROTECT
D221
PROTECT
D208
PROT2
D207
PROT1
D204
PROT7
IC205
STBY 5V REG
RM8
STBY5V
D209
PROT3
IC1401
FRONT AUDIO AMP
R OUT
L OUT
D1406
PROTECT
D1408
PROTECT
D1407
D1409
PROTECT
D1404
D1405
PROTECT
OFF MUTE
Q203
H DRIVE
Q501
T502
HDT
H OUT
Q502
L501
HLC
T501
HDT
PIN OUT
Q508
PIN AMP
PIN BUFFER
Q505-507
-135V
D501
+15V RECT
+15V
-15V
D502
-15V RECT
D504
SLICER
HP-2
Q510
HP-SENS
HP-PROT
Q511,512
R BUFFER
Q1601
G BUFFER
Q1605
B BUFFER
Q1606
IC1601
SHADING-COMP
R-IN
G-IN
B-IN
H-PARA
V-PARA
HSAW-B
HSAW-R
SW
CO
R-OUT
G-OUT
B-OUT
IC506
BUS-DEC
CLK
DAT
RS
SS
SC/O
BH
RH
BV
RV
BUFFER
Q504
+9V
LIMIT BUFFER
Q1619
D1610
PEAK LIMIT
D1611
PEAK LIMIT
D1612
PEAK LIMIT
B BUFFER
Q1604
G BUFFER
Q1602
R BUFFER
Q1603
IK BUFFER
Q1620
A-22
VM
VM MUTE
VM SW
B-H
R-H
R-HDY(-)
G-HDY(-)
B-HDY(-)
HRC
HGC
HBC
A-18
R-H(+)
R-H(-)
PROT
A-19
G-H(+)
G-H(-)
A-20
B-H(+)
B-H(-)
D1607
CPROT
D1608
V-PROT
A-9
R.OUT
A-38
L.OUT
A-3
AUDIO +B
A-10
-HP
HD
H.PARA(-)
V.PARA
ABL
A-14
V BLK
H BLK
H RC
H GC
H BC
PIN
A-24
IK
A-5
H.PARA(-)
H.PARA(+)
V.PARA(+)
H.SAW(+)
PROT
A-17
BLUE
A-16
GREEN
A-15
RED
A-4
R-V
B-V
V PROT
1,2
3,4,13
25
5,14
6,8
9,10,11
16,17,18
7,19
27
①
②
③
④
⑤
⑥
⑦
⑧
⑫


TU2001
TO ANTENNA SWITCH
IC2004
TUNIG CONTROL
IC2003
RESET
CLK IND
Q2030
X2001
4MHz
IC2005
NVM
DET OUT
Q2002
IC2002
AFT SW
BUFF,SYNC SEP
Q2003,2004
SW2 BUFFER
Q2009
ANT/AUX INV
Q2011,2012
BUFFER
Q2010
TO ANTENNA SWITCH
TO A BOARD
P3-1
VDW
HDW
B DAT
B CLK
MCS
M DAT
M CLK
V,P
H,P
2nd R
2nd V
2nd L
SUB SYNC
SUB V
MAIN V
HUE
COL
AUDIO AMP
Q2001
RV2001
SUB AUDIO
AUDIO MUTE
Q2008
BUFFER
Q2031
HD INV,1,2
Q2007,2006
VP INV
Q2036
MUTE
CHR BUFFER
Q2005
MPX SRC
C BLK
VIDEO MUTE
Q2015,2016
CLAMP
Q2022
D2004
IC2006
VIDEO SW
VIDEO BUFFER
Q2017
FL2001
Y/C SEP
Y BUFFER
Q2032,2034
RV2002
SUB CONT
H SYNC SEP
Q2020
V SYNC SEP
Q2019
SYNC BUFFER
Q2021
IC2007
Y/C JUNGLE
LPF SW
Q2023,2024
Y BUFFER
Q2025
B-Y BUFFER
Q2026,2027
R-Y BUFFER
Q2008,2009
X2002
CV2001
RV2003
SUB COLOR
RV2004
SUB HUE
IC2001
12V REG
5.6V REG
Q2018
17V
12V
9V
5.6V
P3-40
P3 (2nd CONT 2nd TUNER-VIF/SIF Y/C JUNGLE P-INP)
P2-40
FL3014
LPF
IC3009
Y A/D CONVERTOR
IC3008
Y2 MEMORY
IC3006
Y1 MEMORY
IC3004
C-Y MEMORY
FL3013
FL3012
IC3007
C-Y MAX
C-Y BUFFER
Q3009
IC3005
A/D CONVERTOR
IC3003
MPX CONTROL
FL3010
FL3009
T3001
IC3001
WRT,CLK,OSC
T3002
IC3002
READ,CLK,OSC
FL3001
FL3002
VP INV
Q3001
HP INV
Q3002
B-Y BUFFER
Q3005
R-Y BUFFER
Q3007
Y BUFFER
Q3008
Y BUFFER,HOOK UP
Q3006,3004,3003
R MATRIX
Q3012
R BUFFER
Q3011
B MATRIX
Q3015
B BUFFER
Q3010
G MATRIX
Q3014
G BUFFER
Q3013
CP
P2 (MPX P-IN-P CIRCUIT)
P-31
COLOR
HUE
MAIN V
SUB V
SUB SYNC
HP
VP
M CLK
M DAT
M CS
B CLK
B DAT
HDW
VDW
YS
R(R-Y)
B(B-Y)
G(Y)
A BOARD
P2-1
Ⓒ
HDW
SUB SYNC
RGB CLAMP
HDR
FOR GIG
P2-3002

U (AUDIO/VIDEO/IN/OUT)
IC1002 AUDIO/VIDEO SELECT SWITCH
VIDEO AMP Q1029
VIDEO OUT Q1032
TV BUFFER Q1023
L/R BUFFER Q1034,Q1033
VIDEO OUT Q1021
Y/C OUT Q1017,1020
AUDIO L/R OUT Q1015,1016
IC1011 AUDIO AMP
MUTE Q1018,Q1022
MUTE Q1009,Q1010
MUTE Q1030,Q1031
D1009 D1011 PROTECT
D1017 D1005 PROTECT
D1020 MUTE
D1022 MUTE
D1021 MUTE
YA (AUDIO AMP)
IC7001 FRONT AUDIO OUT
R MUTE Q7001
L MUTE Q7002
MUTE Q7041
AUDIO +B
H2 (1)
D1655 PROTECT
D1654 PROTECT
D1653 PROTECT
VIDEO
AUDIO(L)
AUDIO(R)
VIDEO 3 IN
UT (IN/OUT TERMINAL)
D1166 PROTECT
D1167 PROTECT
D1170 PROTECT
D1165 PROTECT
VIDEO 1 IN
Y/C
VIDEO 2 IN
VIDEO 3 IN
LOOP OUT
MONITOR OUT
AUDIO OUT (FIXED)
AUDIO OUT (VAR)
SPEAKER TERMINAL
S1150 SERVICE
REAR/FRONT(R)
REAR/FRONT(L)
H1
S1606 POWER
D1601 5V STEREO
D1602 STBY 5V TIMER
S1605 VOL
S1604
S1603 CH
S1602
S1601 TV/VIDEO
IC1601 DETECTOR
H2 (2)
PROTECT Q1653
RELAY DRIVE Q1652
RELAY DRIVE Q1651
RY1652
RY1651
SP902 SPEAKER (R)
SP901 SPEAKER (L)
MENU
UP
DOWN
RTN
S1651 DEMO
N (H.V)
G2 CONTROL Q812
D818 PROTECT
FOCUS BLOCK
D853 RECT2
D851 RECT1
CB BOARD
T801 HD.T1
HV REG Q801
D801 HV REG CLAMP
IK DET IC802(1)
D812 ΣIK HOLD
ΣIK DET IC802(2)
HV DET IC804(2)
ΣIK PROTECT 1 Q807
ΣIK PROTECT 2 Q808
HV PROTECT-1 Q804
HV REG DRIVE Q802
OFF PROT Q820
+12V REG IC801
HV REG DRIVE2 Q809
IC805 H.PIN CONT
COMP
OSC
TRIG OSC
HV PROTECT-2 Q805
T803 FBT
HV CONVERTER Q811
HV REG DET IC803(2)
HV.BLOCK
TO PICTURE TUBE
H DRIVE BUFFER Q803
H DRIVE Q806
T802 HD.T2
DF OUT Q853
DF AMP-1 Q851
DF AMP-2 Q852
HV REG DET IC803(1)
HV DET IC804(1)
YG
RY7201
D7201
T7201 AUDIO TRANSFORMER
F7201 AUDIO (+B) RECT D7202
F7202 AUDIO (+B) RECT D7203
G (POWER SUPPLY)
AC IN 120V 60HZ
F601
SURGE PROTECTOR VDR601
LINE FILTER T606
POWER RECT D633
SWITCHING 1 Q603
T603 PRT
T601 PIT
PROTECTOR Q630,Q645
SWITCHING Q624,Q639
STBY-REG CONTROL IC606
RERAY DRIVE IC602
SWITCHING 2 Q614
D622 POWER BACK-UP
D621 POWER BACK-UP
RY602
RY601
CONTROLLER Q623,Q636,Q638
HV REF CONT.AMP Q616
REG-REF CONTROL IC601
SLOW-START SWITCH Q620
RERAY DRIVE Q629
OVP Q618,Q621
REG AMP Q601,Q602
REG CONTROL Q605,Q606,Q609
RV602 REG CONT
REG CONTROL Q606,Q610,Q608
RV603 -135 REG CONT
REG CONTROL AMP Q613,Q617
REG AMP Q611,Q612
REG CONTROL Q608,Q607,Q609
RV601 225V REG CONT
REG AMP Q604,Q630
RECT Q626,Q640
LIMITTER Q615,Q619
TO A BOARD A-2
TO D BOARD D7
TO A BOARD A-6
AUDIO +B

X3 (DIGITAL SIGNAL PROCESSOR)
A BOARD X3-1 Ⓐ
IC2506 LOW PASS FILTER
IC2503 AD/DA CONVERTOR
IC2512 REAR-VOLUME
IC2513 LOW PASS FILTER
IC2502 LOW PASS FILTER
IC2507 AD/DA CONVERTOR
IC2511 D-RAM
IC2510 DSP
IC2504 DSP
BUFFER Q2501
IC2508 CONTROL
IC2509 RESET
P4 (DIGITAL COMB FILTER)
VIDEO BUFF Q1210
V.LPF BUFF Q1223
FL1203 L.P.F
LPF OUT BUFF Q1217
DIG COM FILTER
A/D CONVERTOR
IC1202 4fsc GENERATOR
H BUFF Q1218
C BUFF Q1211
CLAMP
H SYNC SEP
32FH VCO
B.P.F GEN
4fsc AMP
4fsc VCO
APC DET
KILL ID
KILL-INV Q1209
D/A CONVERTOR
IC1201 5V REG
IC1203 5V REG
C OUT AMP BUFF Q1201-1203
Y OUT AMP BUFF Q1205-1207
FL1201 LPF
FL1202 LPF
C LPF BUFF Q1204
Y LPF BUFF Q1208
A BOARD E1-1 Ⓕ
INVERTER Q326
C BUFFER Q310,321,344
IC302 (1) Y/C JUMGLE
Y BUFFER Q306
Y BUFFER/CLAMP Q301-304 Q305·311·313·314
VM Q340·342·DL302
BUFFER Q334
VP INV Q327
V BLK INV Q323
IC301 DAT CLK TV
IC303 AFC Q329 VANG Q330 V BOW
H BUFFER Q328
AFC OUTPUT Q315,316
IC302 (2)
R OUTPUT Q322
G OUTPUT Q324
B OUTPUT Q325
INVERTER Q317
H SYNC SEP Q333,Q335
V.SW.Ik DET Q307-309
X301 3.58MHz
E1 (Y/C JANGLE)
V (VM)
IC1551 R.CENT(H)
IC1552 G.B CENT(H)
R DRIVE Q1551,1552
G DRIVE Q1555,1556
B DRIVE Q1553,1554
Y-HPF Q1504
D1502 LEVEL SHIFT
VM AMP 1,2,3 Q1505,1506,1507
VM BUFFER Q1508
VM DRIVE OUTPUT Q1501,1502
VM MUTE Q1503
D1509 BUS-SW
A BOARD E2-1 Ⓔ
R SLICE/R.G.B CLAMP/ B.G BUFFER Q2345,2339,2340,2341 Q2338,2342
R-G-B BUFFER Q2306-2308
IC2306 R-G-B SWITCH
R-G-B CLAMP Q2320-2322
YS OUTPUT/SWITCH Q2301·2303·2304·Q2337
IC2307 SUB D/A CONVERTOR
YM SWITCH/BUFFER/OUTPUT Q2324·2309
IC2301 IC2303 CHA-GEN BRT-CONT
X2301 4MHz
R-G-B BUFFER/OUTPUT YS SWITCH Q2310-2315 Q2317-2319
VM BUFFER Q2326
IC2304 SHARPNESS CONTROL
Y BUFFER Q2327
VM SW Q2330
E2 (SHARPNESS CONTROL CHARACTOR GENERATER)
A BOARD Y2-1 Ⓑ
IC404 MTS-DECODE
IC403 AUDIO AMP
IC404 ROM
IC406 D/A CONTROL
SCL·SDA BUFFER Q409,Q410
IC407 BASS/TREBLE BOOST
BUFFER Q405
BUFFER Q404
Y2 (MTS DECORD AUDIO CONT)
IC3401 RESET
IC3402 SUB CONTROL MICROCOMPUTER
X3401
S (SUB CONTROL)
A BOARD M1-1
A BOARD Ⓜ
MUTE 1 Q014
V PULSE Q009
H PULSE Q010
IC001 MICROCOMPUTER
D010 CHP.POS1
X001 6MHz
MUTE Q009
D009
CLK REV Q013
DAT SW Q011
H SYNC Q011
IC002 RESET
STBY 5V
SIRCS1-5,8 Q002-Q004 Q006-Q008
D004 CLAMP
M (MAINCONTROL)


DS (SIN WAVE GEN)
IC1711
IC1712 SIN GEN
IC1713
RV983
RV984
H PARA(+)
H SAW(-)
V PARA(+)
V SAW(-)
DS-6
D-14
D-5
D-6
PIN4
HBC1
HBC2
HBC3
H BLK
V BLK
H PARA(-)
H PARA(+)
V PARA(+)
H SAW(+)
PROT
V SAW(-)
H SAW(-)
V PARA(+)
H PARA(+)
V SIN
H SIN
VB
VG
VR
HB
HG
HR
CENT
SIZE
LIN
SKEW
KEYS
BOW
PIN
SUB SKEW
SUB BOW
V/WING
W/M PIN
M LIN S
M,LIN L
M.WAVE
WAVE-A
WAVE-U
V M PIN
H4 AMP IC1718 (1)
V PIN AMP IC1714 (2)
V PARA(+)AMP IC901 (1)
IC910 MULTIPLIER
IC902 WAVE GEN
V SAW+V3 COMPARATOR IC1715 (1)
H PARA(-)AMP IC901 (2)
H PARA+H4 COMPARATER IC908 (1)
IC907
V.M L L AMP IC908 (2)
H SAW (+)AMP IC1714 (1)
RV982
RV981
H SIN AMP IC1718 (1)
V SIN AMP IC1718 (2)
ERROR AMP1 IC1709 (2)
VB SUB AMP IC1703 (1)
HB SUB AMP IC1703 (2)
ERROR AMP 2 IC1710 (1)
VG SUB AMP IC1702 (1)
HG SUB AMP IC1702 (2)
ERROR AMP 1 IC1709 (1)
VR SUB AMP IC1701 (1)
HR SUB AMP IC1701 (2)
ERROR AMP 2 IC1710 (2)
VB B SUB OUT 2 IC1705 (2)
HB SUB OUT 2 IC1705 (3)
V-OUT AMP (B) IC1708
VG SUB OUT 2 IC1704 (3)
HG SUB OUT 2 IC1705 (1)
V-OUT AMP (G) IC1707
VR SUB OUT 2 IC1704 (1)
HR SUB OUT 2 IC1704 (2)
V-OUT AMP (R) IC1706
D1709 B P2
D1710 G P2
V.PROTECT 1-3 Q906,Q907,D1701
R-V BUFFER Q910,Q911
B-V BUFFER Q908,Q912
D-3
D-2
D-1
D-4
VB OUT
VB RET
HB OUT
HB RET
V DEF B
V B DEF
C PROT
VG OUT
VG RET
HG OUT
HG RET
V DEF G
VG DEF
VR OUT
VR RET
HR OUT
HR RET
V DEF R
VR DEF
V PROT
R-V
B-V
+5V REG IC903
D902 +5V PROTECT
-5V PROTECT Q902
+15V REG IC906
D1711 +12V PROT
-12V PROTECT Q908
-5V REG IC904
-15V REG IC905
+5V
+15V
-5V
-15V
+18V
-18V
D (REGISTRATION DEFLECTON)
(R DY) ZR
(G DY) ZG
(B DY) ZB
ZR-1
ZR-2
ZR-3
ZR-18
ZG-2
ZG-4
ZG-19
ZB-3
ZB-20
V.SUB
H.SUB
V(R)
H(R)
V(G)
H(G)
V(B)
H(B)
R-H(+)
R-H(-)
G-H(+)
G-H(-)
B-H(+)
B-H(-)
PROT
CG (G OUT)
CR (R OUT)
CB (B OUT)
BIAS Q701
G DRIVE Q732
VIDEO AMP Q733
VIDEO OUT Q734
G IK DET Q735,Q736
R DRIVE Q702
VIDEO AMP Q703
VIDEO OUT Q704
R IK DET Q705,Q706
BIAS Q761
BLUE-GOMMA
DRIVE Q762
VIDEO AMP Q763
VIDEO OUT Q764
B IK DET Q765,Q766
V902 PICTURE TUBE
V901 PICTURE TUBE
V903 PICTURE TUBE
TO FOCUS BLOCK
TO HV BLOCK
CG-16
CG-5
CR-15
CR-5
CR-4
CB-17
CB-5
CB-4
GREEN
RED
BLU
IK
G OUT
R OUT
B OUT
FV
G2
H(+)
H(-)
16,17,18
9,10,11
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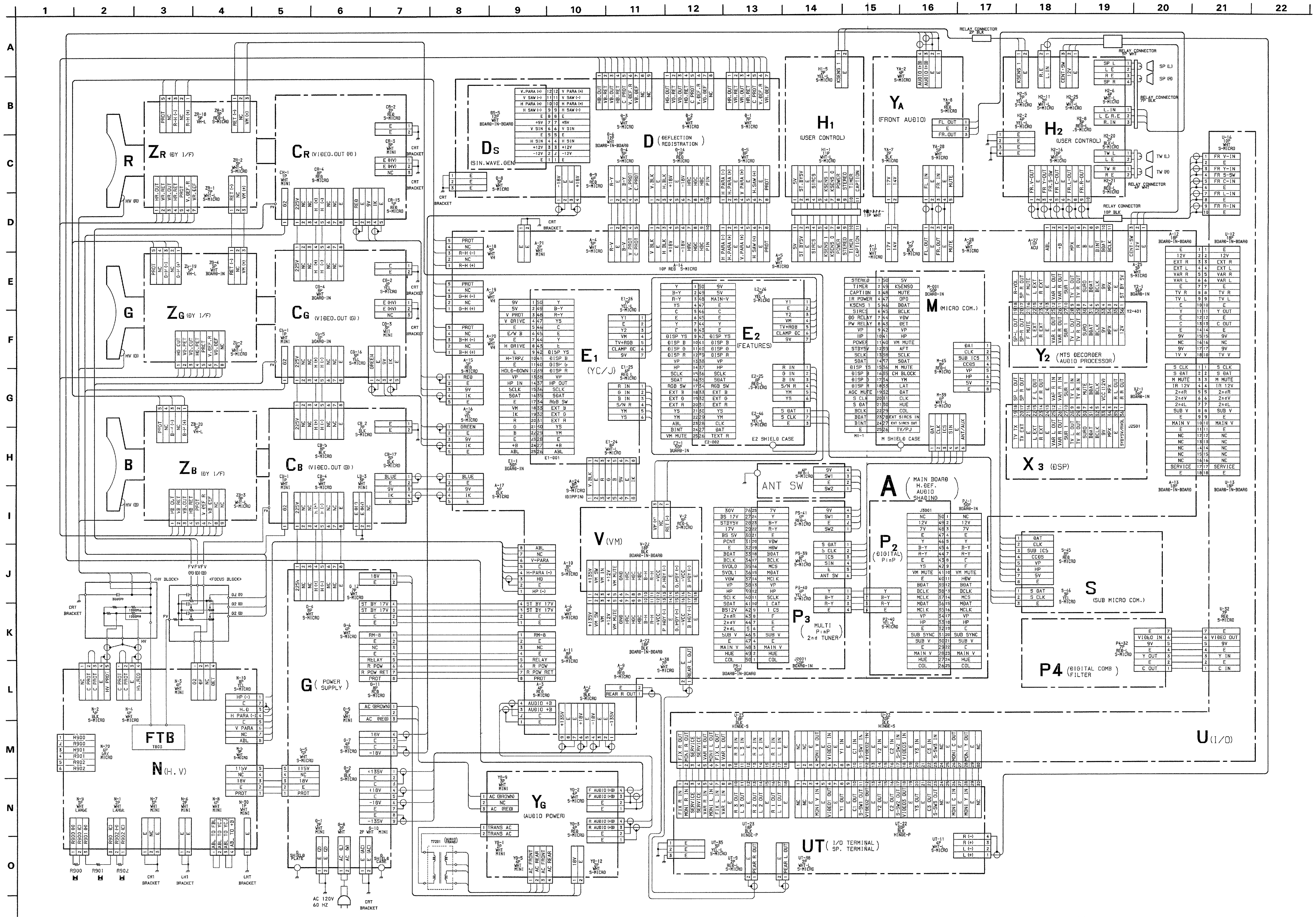
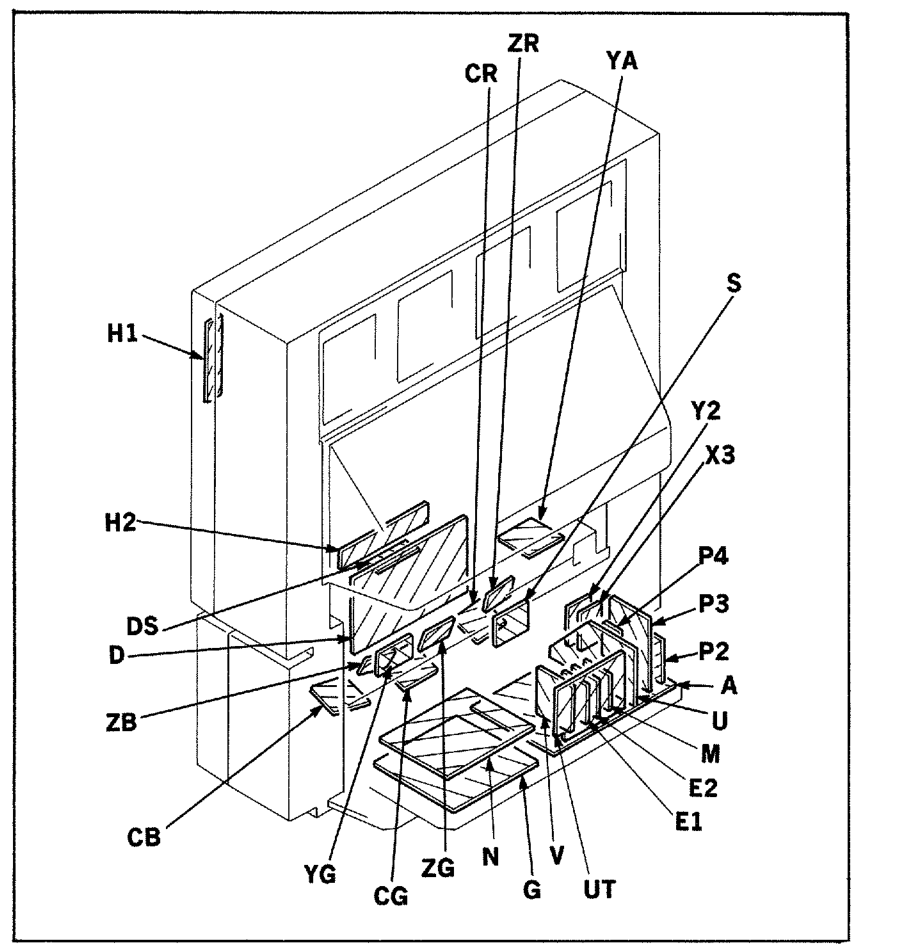
6-2. FRAME SCHEMATIC DIAGRAM


ZR (DY I/F)
CR (VIDEO.OUT (R))
ZG (DY I/F)
CG (VIDEO.OUT (G))
ZB (DY I/F)
CB (VIDEO.OUT (B))
R
G
B
DS (SIN.WAVE.GEN)
D (DEFLECTION REGISTRATION)
H1 (USER CONTROL)
YA (FRONT AUDIO)
H2 (USER CONTROL)
E1 (YC/J)
E2 (FEATURES)
M (MICRO COM.)
Y2 (MTS DECORDER (AUDIO PROCESSOR))
X3 (DSP)
ANT SW
A (MAIN BOARD H-DEF. AUDIO SHADING)
P2 (DIGITAL PinP)
P3 (MULTI PinP 2nd TUNER)
V (VM)
S (SUB MICRO COM.)
P4 (DIGITAL COMB FILTER)
G (POWER SUPPLY)
FTB
N (H.V)
YG (AUDIO POWER)
UT (I/O TERMINAL SP. TERMINAL)
U (I/O)
AC 120V 60 HZ
CRT BRACKET
RELAY CONNECTOR
E2 SHIELD CASE
M SHIELD CASE

6-3. CIRCUIT BOARDS LOCATION


CR
ZR
YA
H1
S
H2
Y2
X3
P4
P3
P2
A
U
M
E2
E1
DS
D
ZB
CB
YG
CG
ZG
N
G
V
UT

6-4. SCHEMATIC DIAGRAMS AND WIRING BOARDS

- All capacitors are in uF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytic and tantalums.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms.
  kΩ=1000Ω, MΩ=1000kΩ
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4W
- Chips resistors are 1/10W.
- : nonflammable resistor.
- fusible resistor.
- △: internal component.
- ☐: panel designation, and adjustment for repair.
- All vasiable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground.
- ⏚ : earth-chassis.
- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should repalacement be requimed, replace only with the value originally used.
- When replacing components identified by ◢ mark the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⧓ and repeat the adjustment until the specified value is achieved.

(Refer to R652, R852, R900, R901, and R902 adjustment on page 59-62)

When replacing the part in below table, be sure to parform the related adjustment.

Part replaced (◢)		Adjustment (⧓)
HV Block IC803, IC805, D805, D807, C817, C818, C821, C836, C837, R824, R825, R827, R828, R834, R835, R836, R864, R865, R866, R902	N Board	HV Regurater (R902)
HV Block IC803, IC804, Q804, D806, D808, C809, C819, C820, C822, C823, C850, R807, R829, R826, R832, R833, R837, R838, R839, R840, R841, R892, R893, R900, R901	N Board	HV Hold down (R900, R901)
Q618, Q621, D628, C634, R639, R649, R652, R655, R656	G Board	OVP (R652)
① IC802, Q805, Q807, D811, D812, C810, C824, C825, C826, C827, C831, R810, R843, R844, R847, R848, R849, R850, R851, R852, R853, R854, R881	N Board	Beme current protecter ① R852 ② R852
② IC804, Q804, Q808, D808, D809, C809, C828, C829, C830, C831, R807, R839, R840, R841, R847, R848, R849, R850, R851, R852, R855, R856, R857, R881	N Board	

Reference information

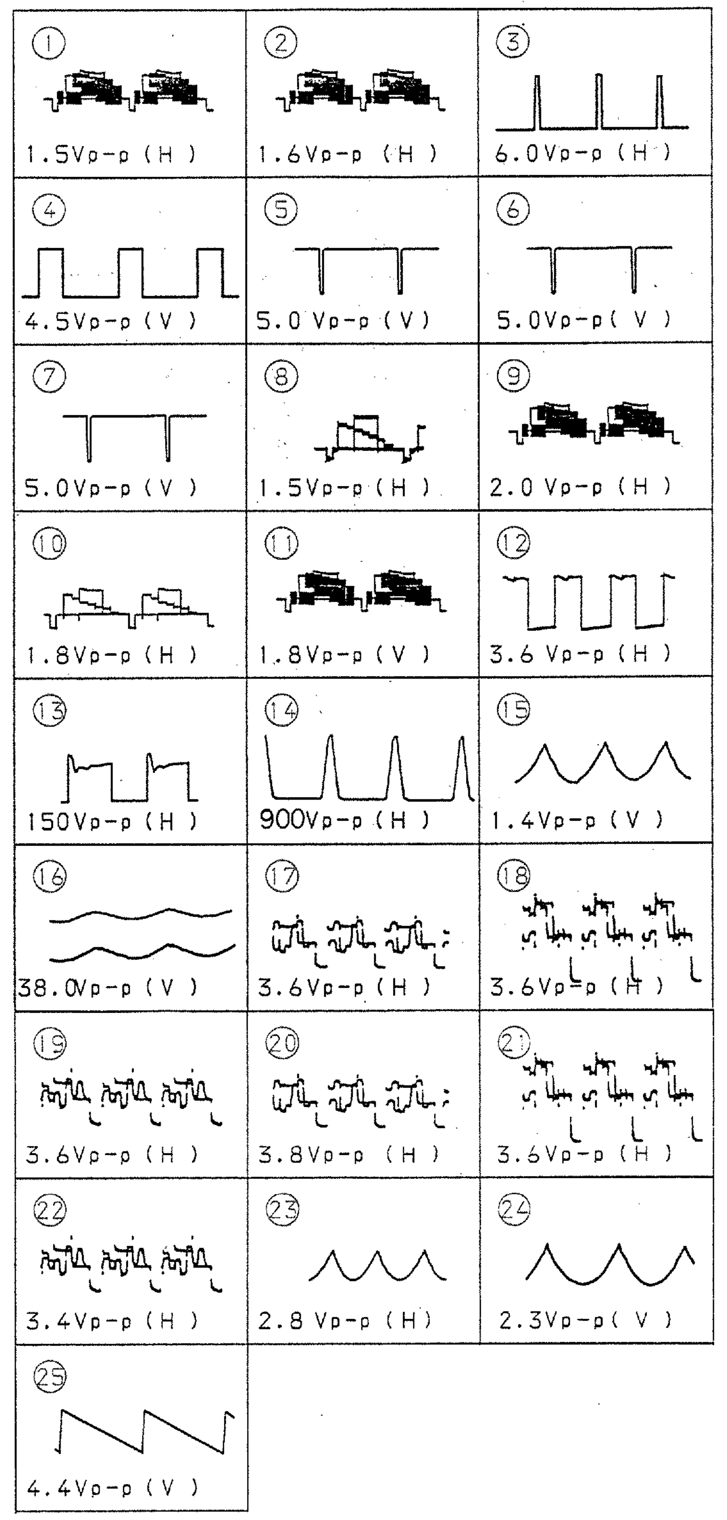
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	SOYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

- Readings are taken with a color-bar signal input
- Reading are taken with a 10 MΩ digital multimeter
- Voltage are dc with respect to ground unless otherwise noted
- Voltage variations may be noted due to normal production tolerances
- All voltages are in V
- Circuled numbers are waveform references
- V . B+ bus
- V : B− bus
- : signal path

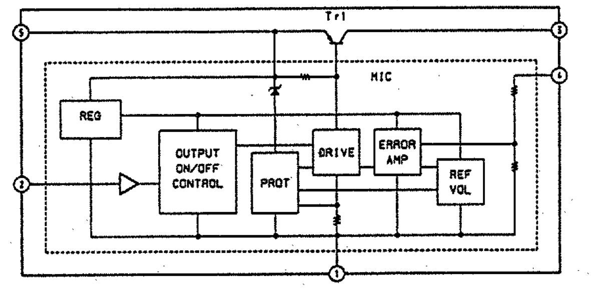
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

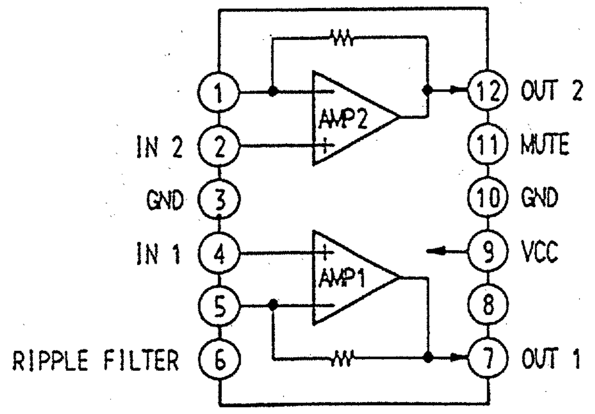
— A Board —

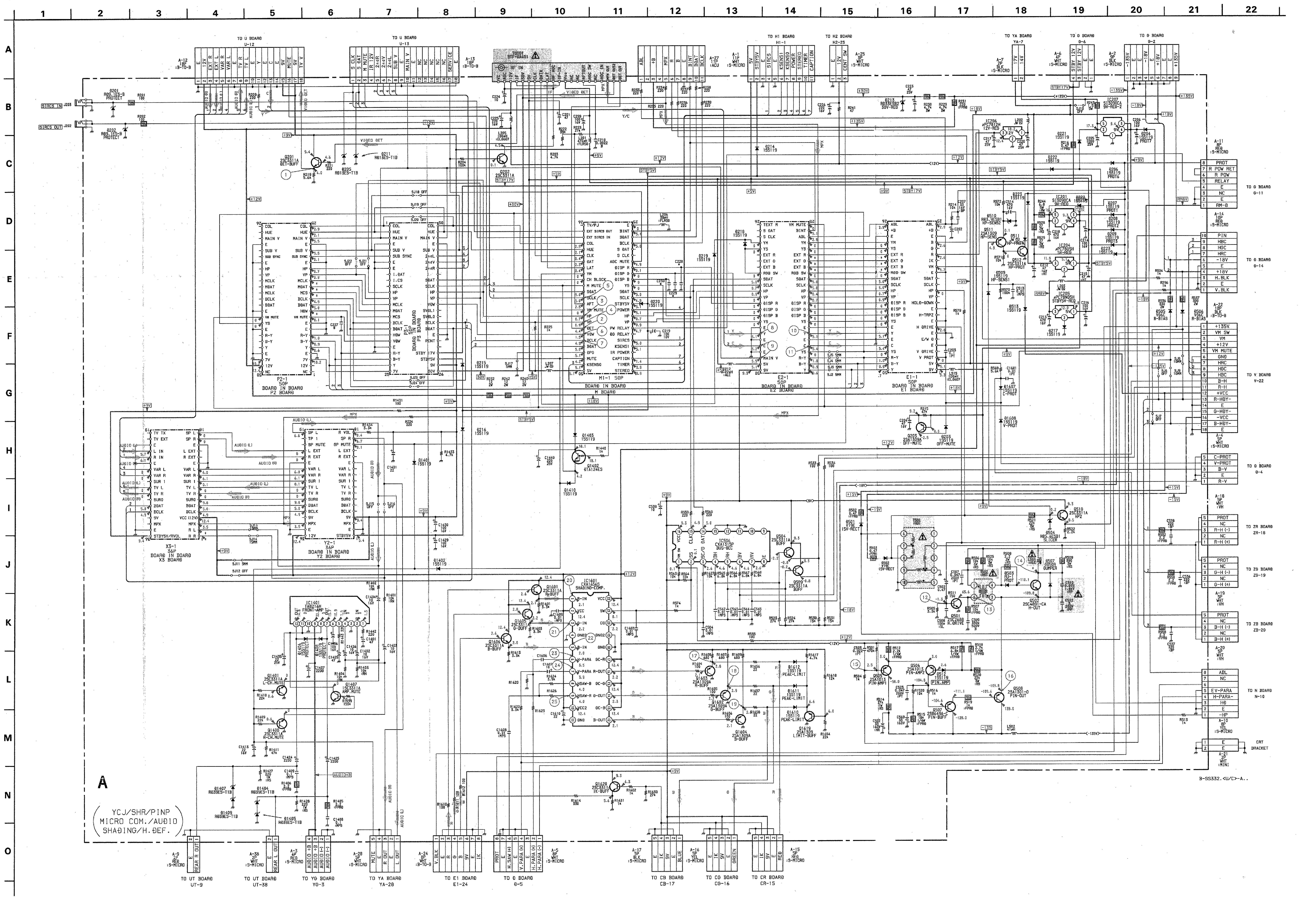


A Board IC201, 207 SI-3090CA


Tr1
MIC
REG
OUTPUT ON/OFF CONTROL
PROT
DRIVE
ERROR AMP
REF VOL
①
②
③
④
⑤

A Board IC1401 TA8216H


IN 2
GND
IN 1
RIPPLE FILTER
①
②
③
④
⑤
⑥
AMP2
AMP1
⑫ OUT 2
⑪ MUTE
⑩ GND
⑨ VCC
⑧
⑦ OUT 1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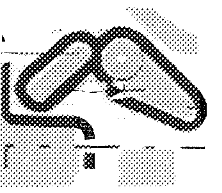
16
17
18
19
20
21
22
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
TO U BOARD U-12
TO U BOARD U-13
TO H1 BOARD H1-1
TO H2 BOARD H2-25
TO YA BOARD YA-7
TO G BOARD G-6
TO G BOARD G-2
SIRCS IN
SIRCS OUT
P2-2 SOP BOARD IN BOARD P2 BOARD
P3 BOARD
M1-1 SOP BOARD IN BOARD M1 BOARD
E2-1 SOP BOARD IN BOARD E2 BOARD
E1-1 SOP BOARD IN BOARD E1 BOARD
X3-1 56P BOARD IN BOARD X3 BOARD
Y2-1 36P BOARD IN BOARD Y2 BOARD
IC1401 TA8216H FRONT-AMP
IC1601 CXA1213AS SHADING-COMP.
IC504 CXA1315P DGU-DEC
IC201 SI-3090CA 9V-REG
IC207 SI-3090CA 9V-REG-2
IC204 μPC78L09
IC205 μPC78L09H
TO G BOARD G-11
TO G BOARD G-14
TO V BOARD V-22
TO G BOARD G-4
TO ZR BOARD ZR-18
TO ZG BOARD ZG-19
TO ZB BOARD ZB-20
TO N BOARD N-10
CRT BRACKET
A
YCJ/SHR/PINP
MICRO COM./AUDIO
SHADING/H.DEF.
TO UT BOARD UT-9
TO UT BOARD UT-38
TO YG BOARD YG-3
TO YA BOARD YA-28
TO E1 BOARD E1-24
TO G BOARD G-5
TO CB BOARD CB-17
TO CG BOARD CG-16
TO CR BOARD CR-15
B-SS332.<U/C>-A..

A

[YCJ/SHR/PINP, MICRO COM/AUDIO, SHADING/H. DEF.]



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

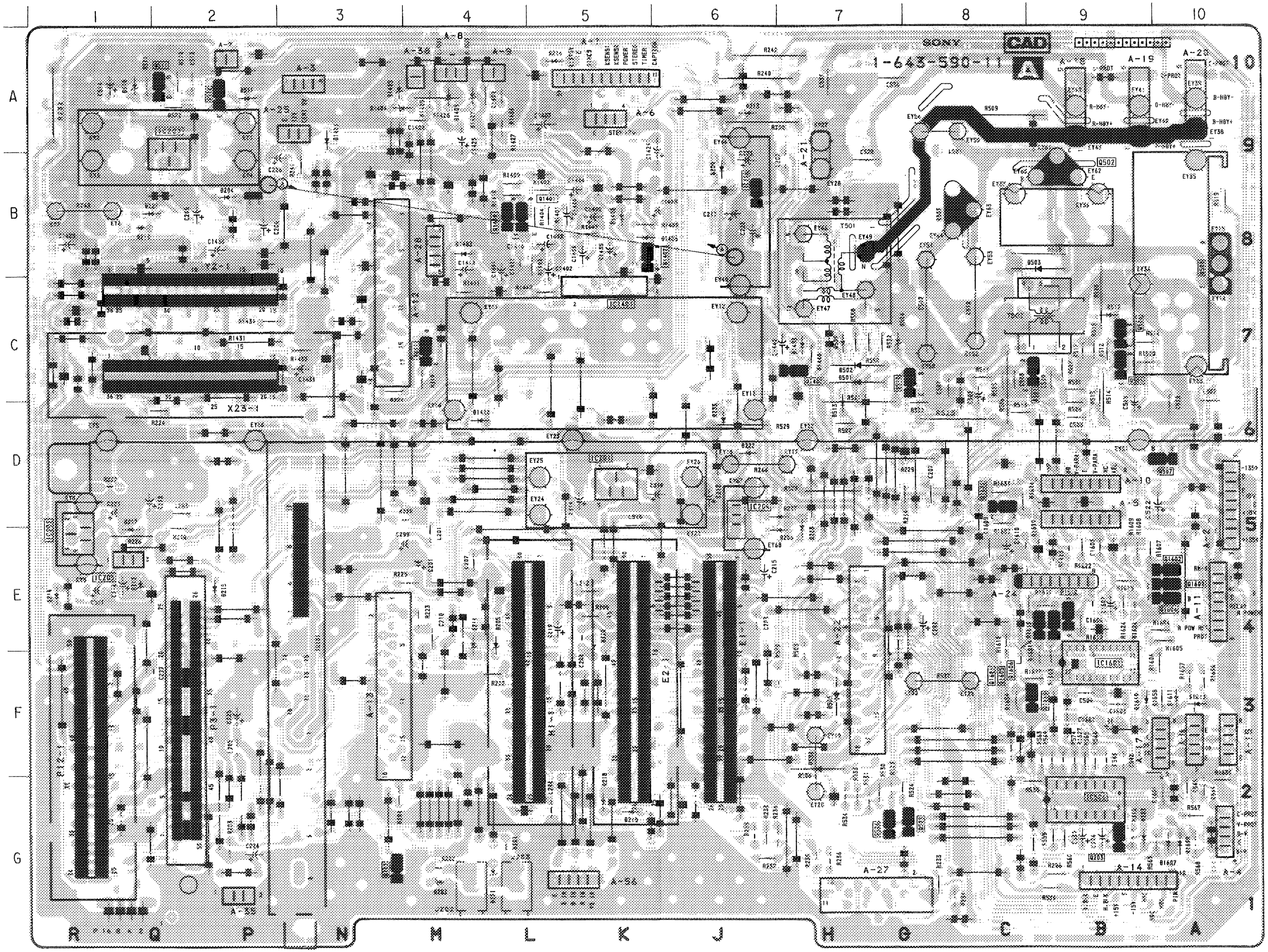
— A Board —

IC	
IC201	D-5
IC204	D-6
IC205	E-1
IC206	B-6
IC207	A-2
IC506	G-9
IC1401	C-5
IC1601	F-9

TRANSISTOR	
Q201	C-4
Q202	G-3
Q203	G-9
Q501	C-9
Q502	B-9
Q504	G-7
Q505	C-9
Q506	C-9
Q507	D-10
Q508	B-10
Q509	G-8
Q510	C-8
Q511	A-2
Q512	A-2
Q1401	B-4
Q1402	C-7
Q1407	B-5
Q1408	B-4
Q1601	E-9
Q1602	E-10
Q1603	E-10
Q1604	E-10
Q1605	E-9
Q1606	E-9
Q1619	F-9
Q1620	D-8

DIODE	
D203	G-9
D204	B-2
D205	E-4
D206	E-7
D207	D-7
D208	E-7
D209	B-6
D211	E-4
D213	A-6
D214	A-5
D215	E-2
D216	E-1
D217	E-1
D218	G-5
D219	G-5
D220	E-5
D501	C-7
D502	C-7
D503	B-9
D504	C-7
D505	F-7
D506	F-7
D507	B-8
D509	C-7
D510	A-1
D511	A-2
D512	C-9
D513	D-7
D1401	A-3
D1402	B-4
D1403	C-7
D1404	A-4
D1405	A-3
D1406	B-5
D1407	A-4
D1408	B-5
D1409	A-4
D1410	D-4
D1607	G-10
D1608	G-10
D1610	F-9
D1611	F-10
D1612	F-10

— A Board —


1
2
3
4
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7
8
9
10
A
B
C
D
E
F
G
SONY
CAD
1-643-590-11
A
IC1401
IC1601
T501
X23-1
X2-1
P3-1
P12-1
A-27
A-56
A-35
A-24
A-14
R
Q
P
N
M
L
K
J
H
G
C
B
A
10
9
8
7
6
5
4
3
2
1

U [AUDIO IN/OUT, VIDEO IN/OUT]

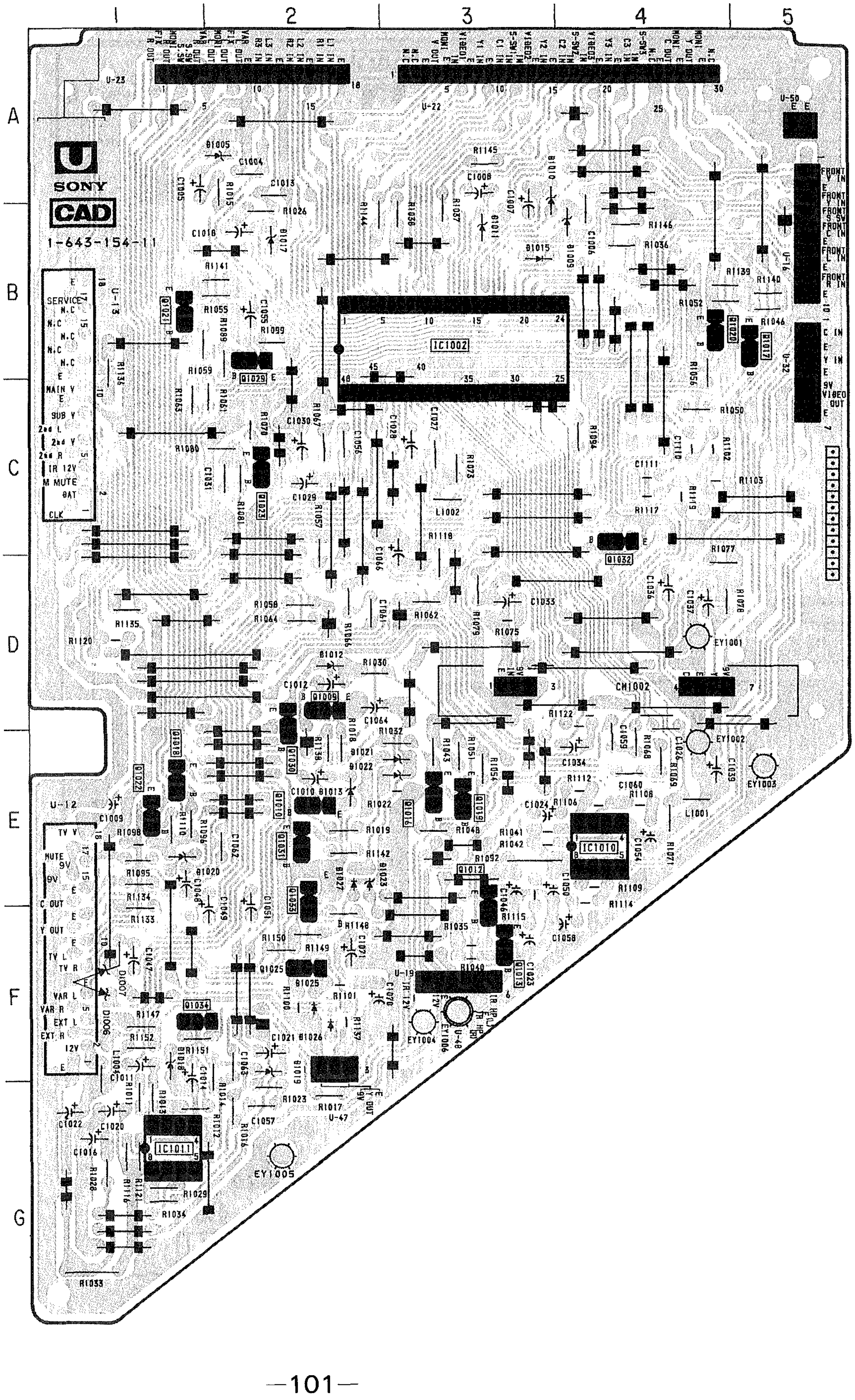
— U Board —

IC	
IC1002	B 3
IC1011	G 1

TRANSISTOR	
Q1009	D 2
Q1010	E 2
Q1016	E 3
Q1017	B 5
Q1018	E-1
Q1019	E-3
Q1020	B 4
Q1021	B 1
Q1022	E 1
Q1023	C 2
Q1029	B 2
Q1030	E 2
Q1031	E 2
Q1032	C 4
Q1033	E 2
Q1034	F-1

DIODE	
D1005	A 2
D1009	B 4
D1010	A 3
D1011	A-3
D1012	D 2
D1013	E 2
D1015	B 2
D1017	B 2
D1018	F 1
D1019	F 2
D1020	E-1
D1021	E-3
D1022	E 3

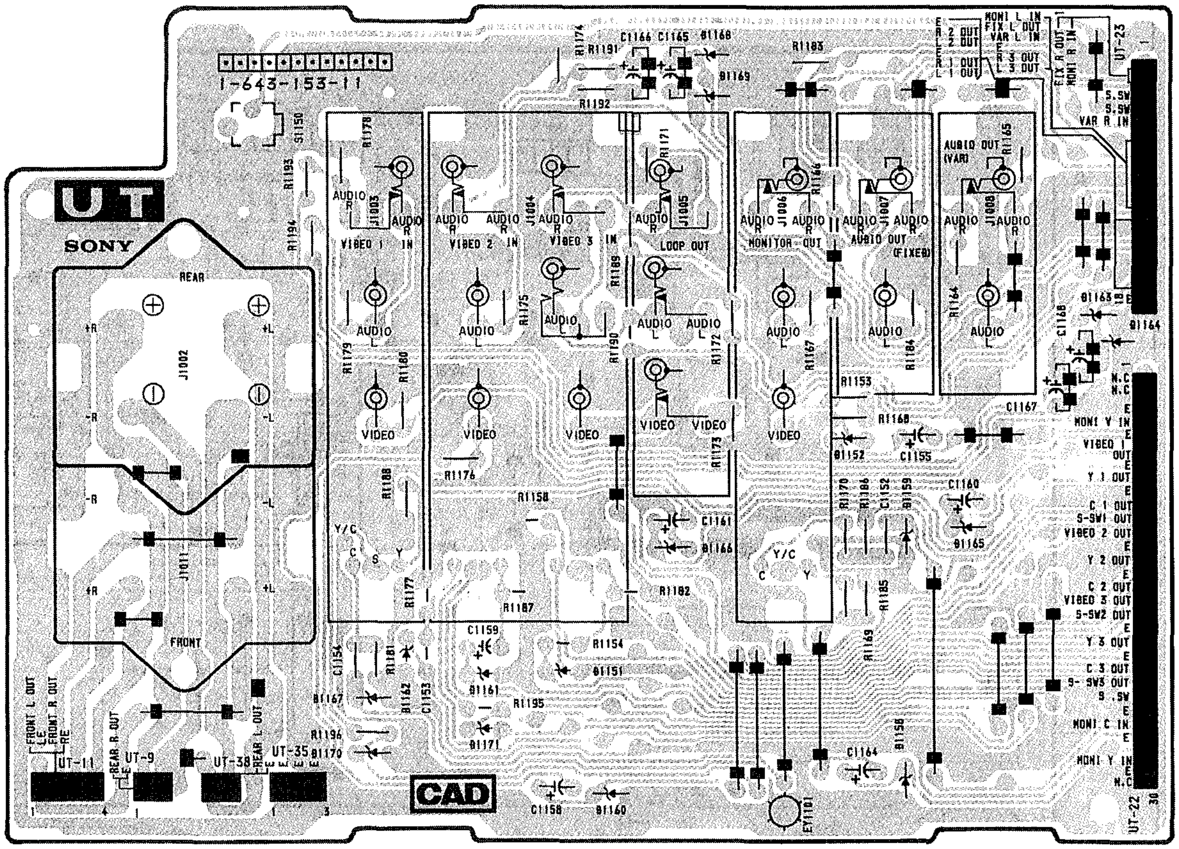
— U Board —


1
2
3
4
5
A
B
C
D
E
F
G
SONY
CAD
1-643-154-11
U-23
U-22
U-13
U-16
U-32
U-50
U-12
U-19
U-47
U-48
IC1002
IC1011
IC1010
CN1002
EY1001
EY1002
EY1003
EY1004
EY1005
EY1006

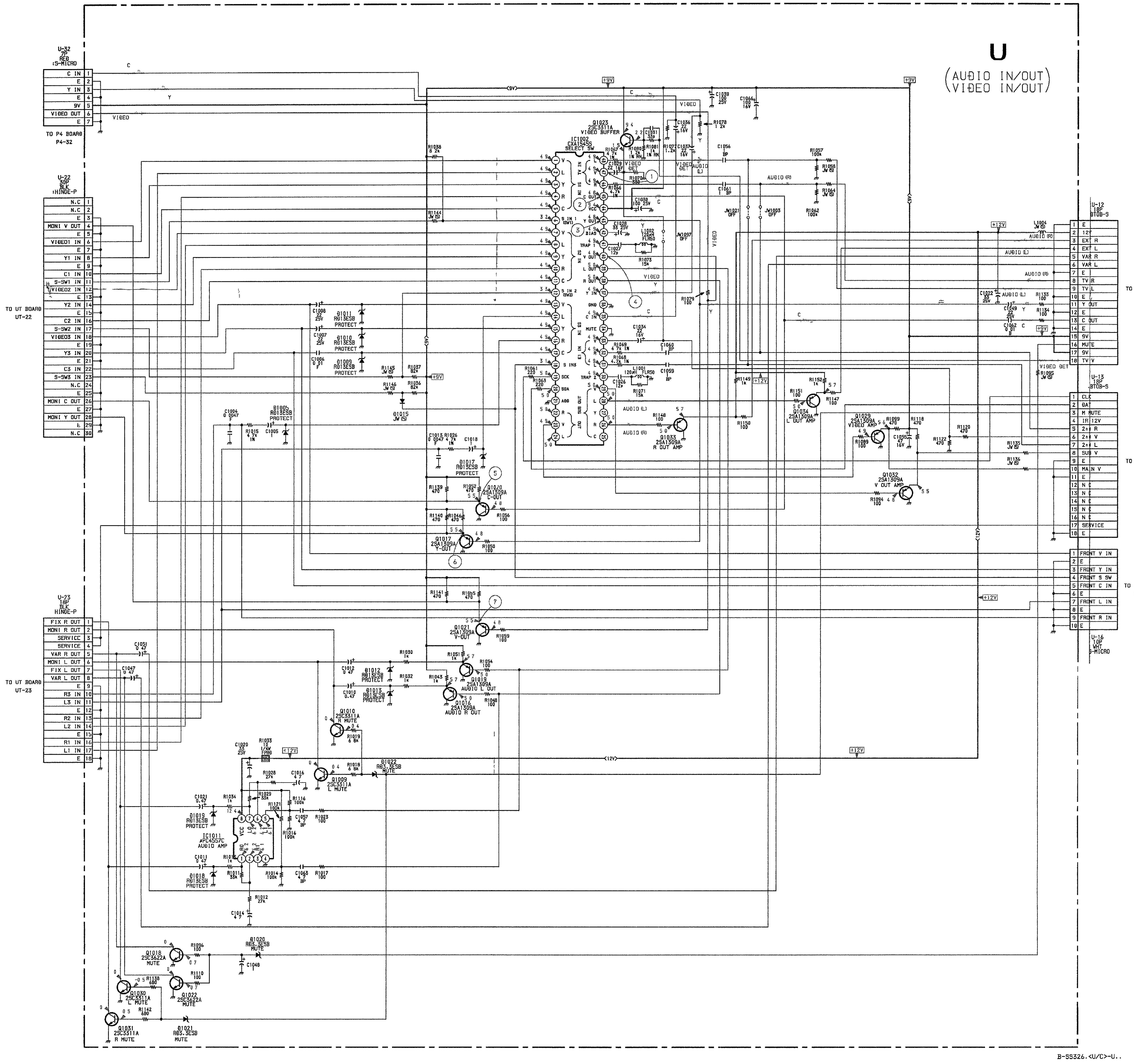
UT

[IN/OUT TERMINAL, SP TERMINAL]

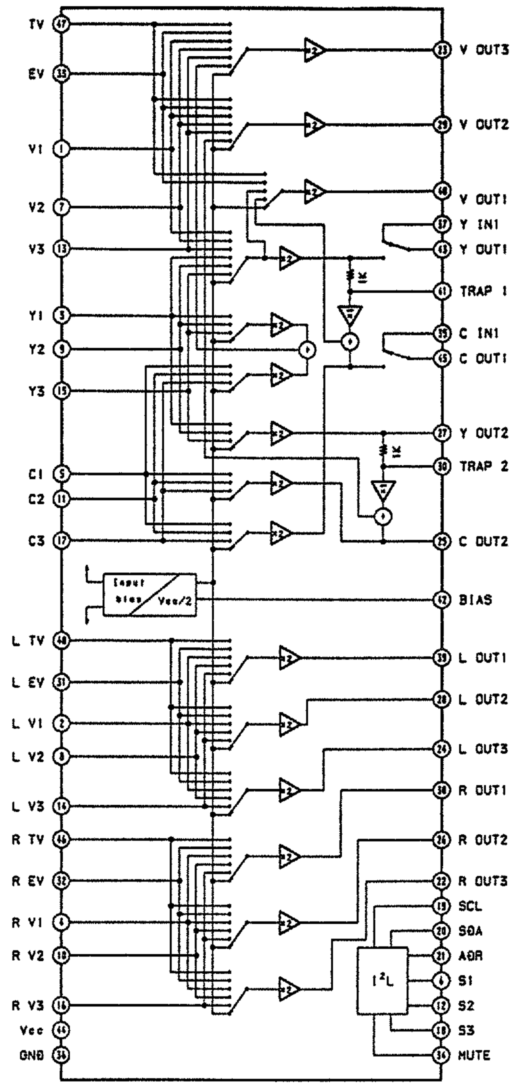
— UT Board —



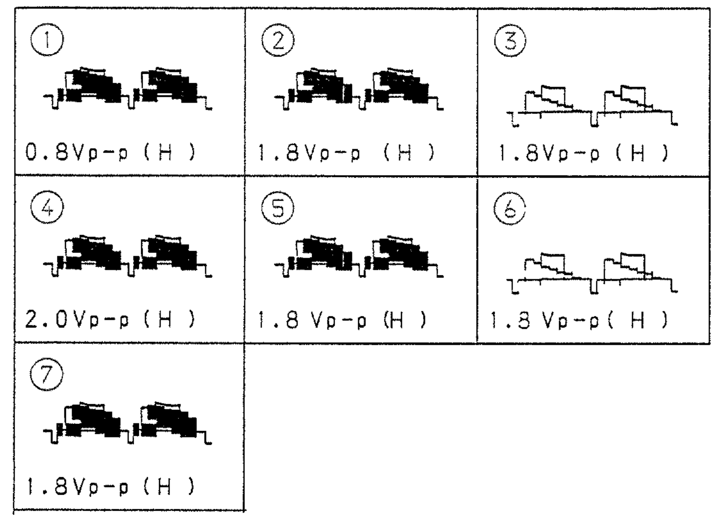
1-643-153-11
UT
SONY
REAR
FRONT
J1002
J1011
+R
+L
-R
-L
S1150
R1193
R1194
R1174
R1191
C1166
C1165
D1168
D1169
R1192
R1183
R1178
J1003
AUDIO R
AUDIO
VIDEO 1 IN
J1004
VIDEO 2 IN
VIDEO 3 IN
R1171
J1005
LOOP OUT
J1006
R1166
MONITOR OUT
J1007
AUDIO OUT (FIXED)
AUDIO OUT (VAR)
R1165
J1008
R1175
R1189
R1190
R1172
R1173
R1167
R1184
R1164
R1179
R1180
R1188
R1176
R1158
R1177
R1187
R1182
R1153
R1168
C1167
C1168
D1163
D1164
C1155
D1152
C1160
D1165
C1161
D1166
R1170
R1186
C1152
D1159
R1185
R1169
D1158
C1164
EY1101
Y/C
C
S
Y
VIDEO
AUDIO L
C1154
R1181
D1162
C1153
D1167
C1159
D1161
R1195
D1171
R1154
D1151
R1196
D1170
C1158
D1160
CAD
FRONT L OUT
FRONT R OUT
LE
RE
REAR R OUT
REAR L OUT
UT-11
UT-9
UT-38
UT-35
UT-23
UT-22
MONI L IN
FIX L OUT
VAR L IN
R 2 OUT
L 2 OUT
R 1 OUT
L 1 OUT
R 3 OUT
L 3 OUT
FIX R OUT
MONI R IN
5.5W
9.5W
VAR R IN
N.C
MONI V IN
VIDEO 1 OUT
Y 1 OUT
C 1 OUT
S-SW1 OUT
VIDEO 2 OUT
Y 2 OUT
C 2 OUT
VIDEO 3 OUT
S-SW2 OUT
Y 3 OUT
C 3 OUT
S-SW3 OUT
9.5V
MONI C IN
MONI Y IN
E

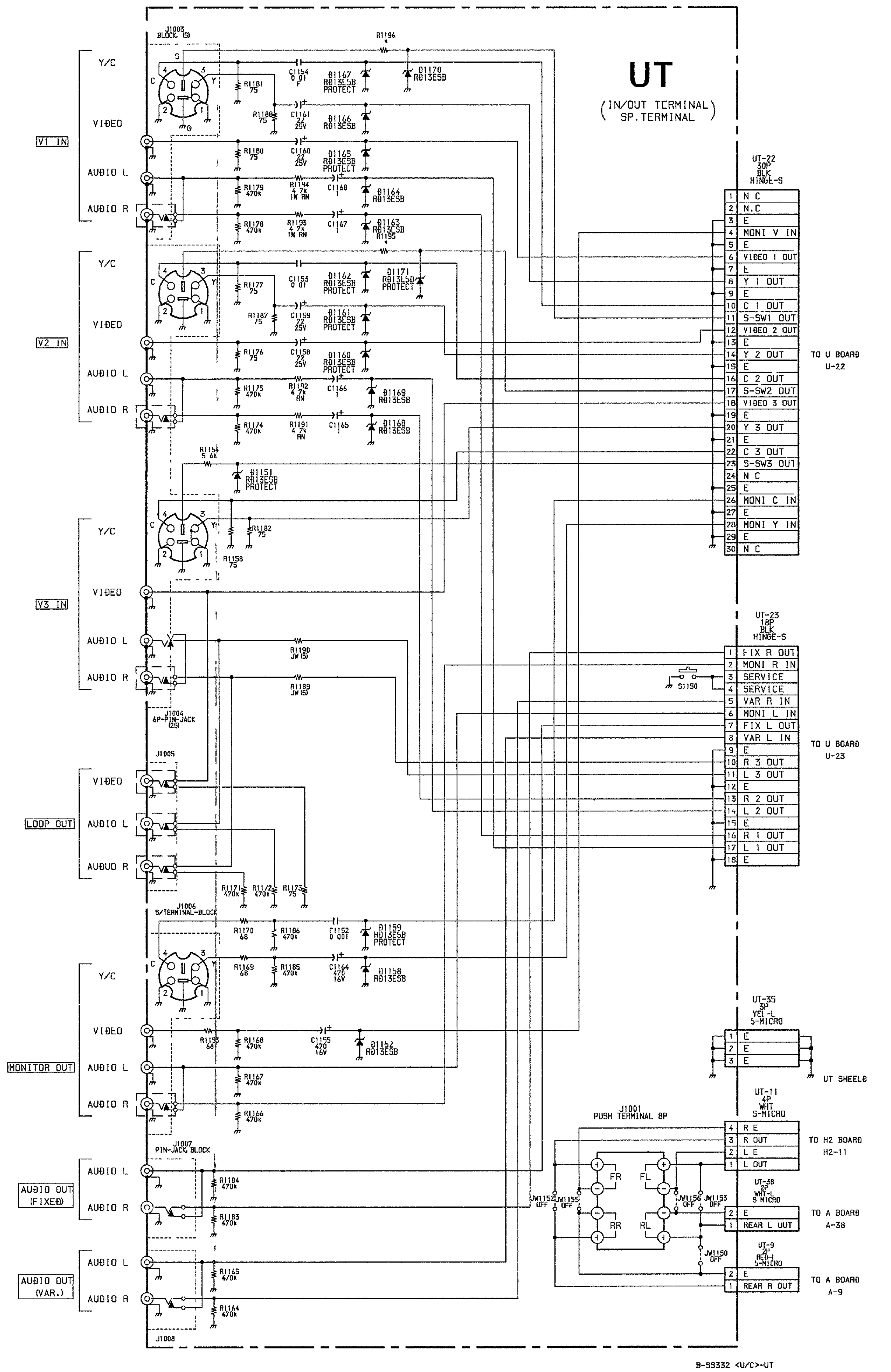

U
(AUDIO IN/OUT
VIDEO IN/OUT)
TO P4 BOARD P4-32
TO UT BOARD UT-22
TO UT BOARD UT-23
TO A BOARD A-12
TO A BOARD A-13
TO H2 BOARD H2-16
IC1002 CXA1545S SELECT SW
IC1011 AN7455C AUDIO AMP
B-SS326.<U/C>-U..

U Board IC002 CXA1545S

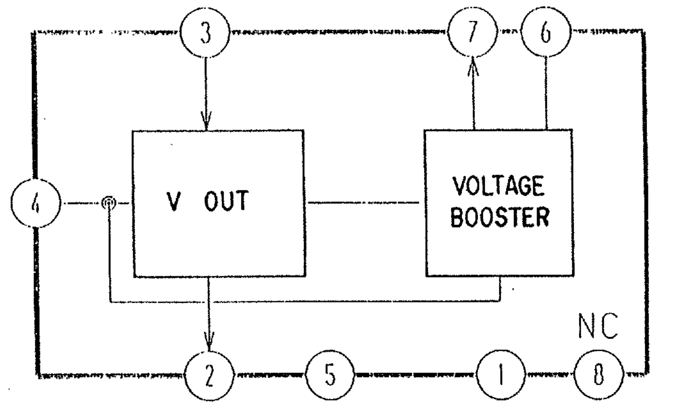

TV
EV
V1
V2
V3
Y1
Y2
Y3
C1
C2
C3
L TV
L EV
L V1
L V2
L V3
R TV
R EV
R V1
R V2
R V3
Vcc
GND
V OUT3
V OUT2
V OUT1
Y IN1
Y OUT1
TRAP 1
C IN1
C OUT1
Y OUT2
TRAP 2
C OUT2
BIAS
L OUT1
L OUT2
L OUT3
R OUT1
R OUT2
R OUT3
SCL
SDA
ADR
S1
S2
S3
MUTE

— U Board —

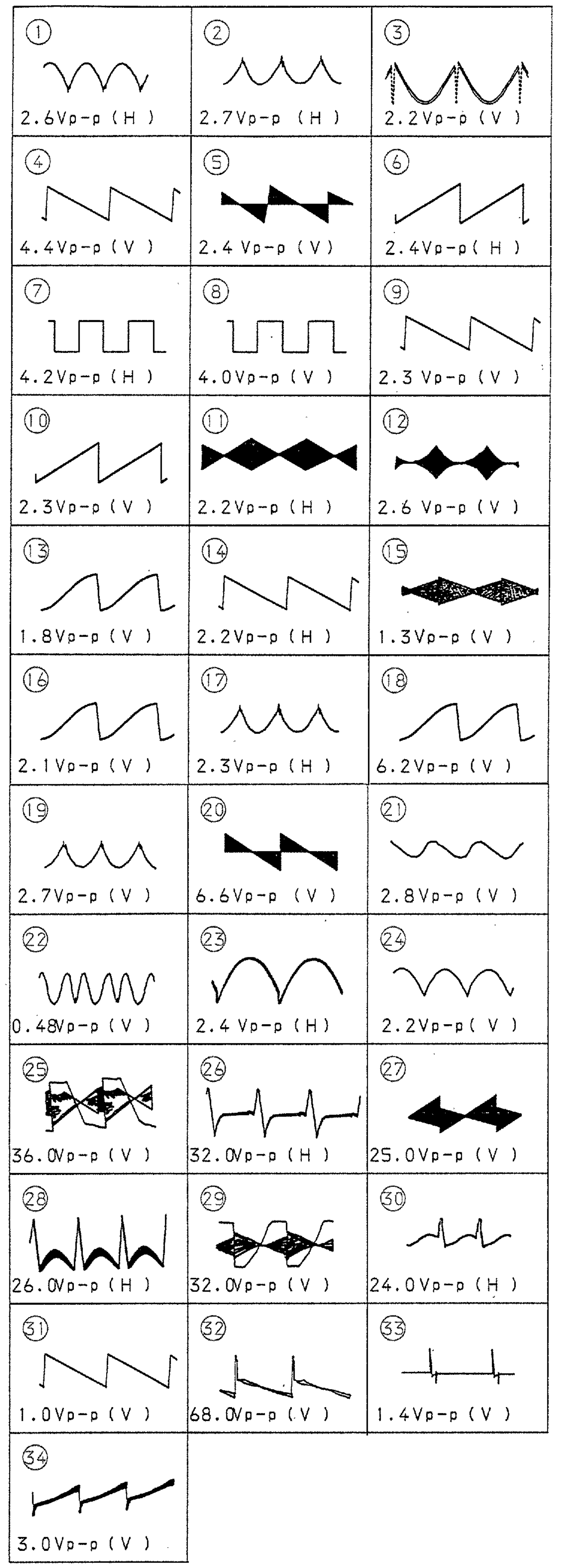

①
0.8Vp-p (H)
②
1.8Vp-p (H)
③
1.8Vp-p (H)
④
2.0Vp-p (H)
⑤
1.8 Vp-p (H)
⑥
1.8 Vp-p (H)
⑦
1.8Vp-p (H)

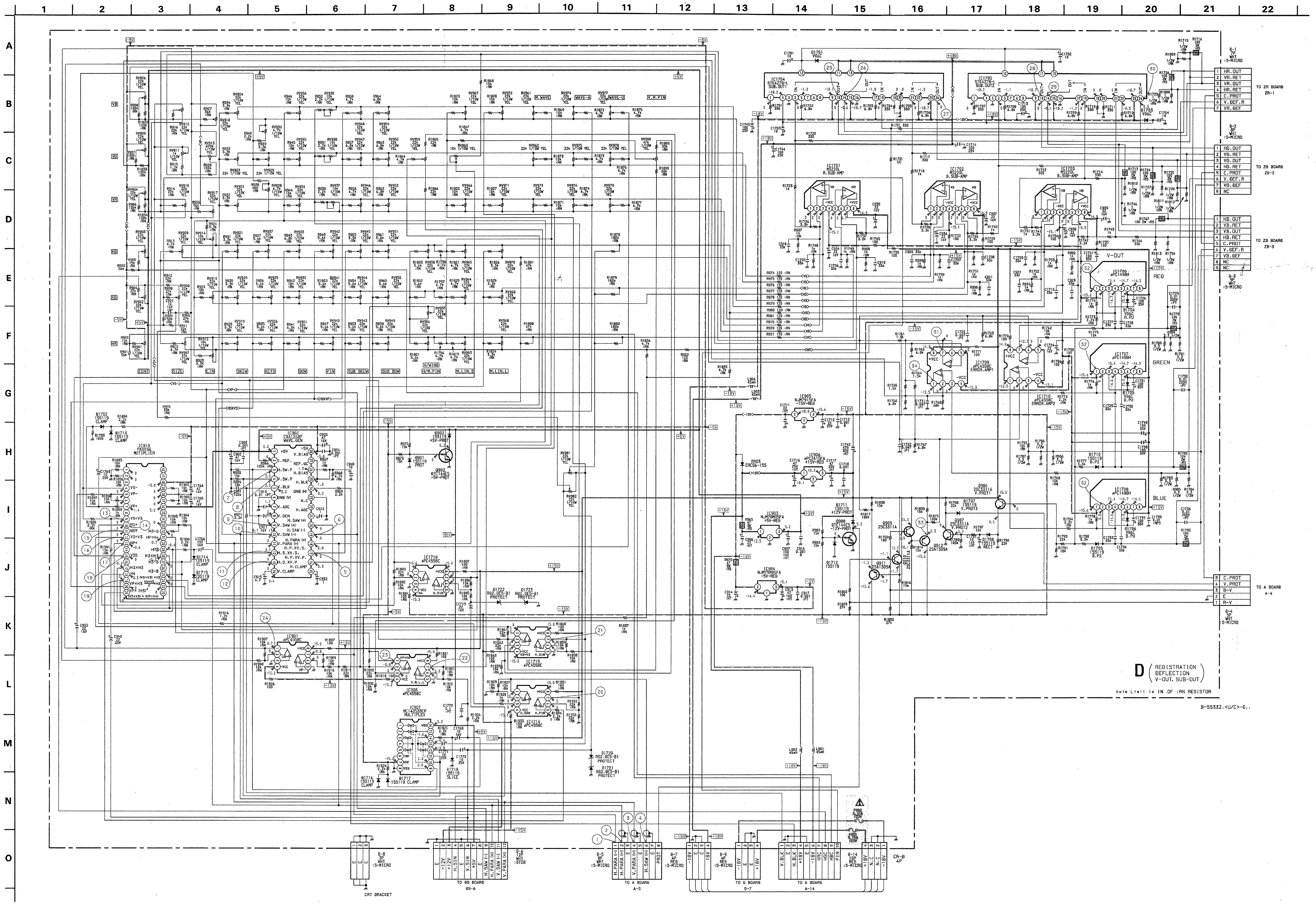

UT
(IN/OUT TERMINAL
SP.TERMINAL)
V1 IN
V2 IN
V3 IN
LOOP OUT
MONITOR OUT
AUDIO OUT (FIXED)
AUDIO OUT (VAR.)
TO U BOARD U-22
TO U BOARD U-23
TO H2 BOARD H2-11
TO A BOARD A-38
TO A BOARD A-9
UT SHEELD
J1021 PUSH TERMINAL 8P
B-SS332 <U/C>-UT

D Board IC1706, 1707, 1708 μPC1498H


3
7
6
4
V OUT
VOLTAGE BOOSTER
NC
2
5
1
8

— D Board —

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A
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C
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G
H
I
J
K
L
M
N
O
IC910 PA9336 MULTIPLIER
IC902 CXA1236P WAVE-GEN
IC901 μPC4558C
IC908 μPC4558C
IC907 MC14053BCP MULTIPLEX
IC1718 μPC4558C
IC1715 μPC4558C
IC1714 μPC4558C
IC1704 STK4278-L SUB-OUT1
IC1702 STK4278-L SUB-OUT2
IC1701 NJM5532 R.SUB-AMP
IC1702 G.SUB-AMP
IC1705 B.SUB-AMP
IC1706 μPC1498H
IC1707 μPC1498H
IC1708 μPC1498H
IC1709 μPC4558C ERROR.AMP1
IC1710 μPC4558C ERROR.AMP2
IC905 NJM7915FA -15V-REG
IC906 μPC2415FA +15V-REG
IC903 NJM78M05FA +5V-REG
IC904 NJM79M05FA -5V-REG
V-OUT
RED
GREEN
BLUE
TO ZR BOARD ZR-1
TO ZG BOARD ZG-2
TO ZB BOARD ZB-3
TO A BOARD A-4
CRT BRACKET
TO GS BOARD GS-6
TO A BOARD A-5
TO G BOARD G-7
TO A BOARD A-14
CN-8 4P

D (REGISTRATION DEFLECTION V-OUT, SUB-OUT)

Note Limit is 1% OF :RN RESISTOR

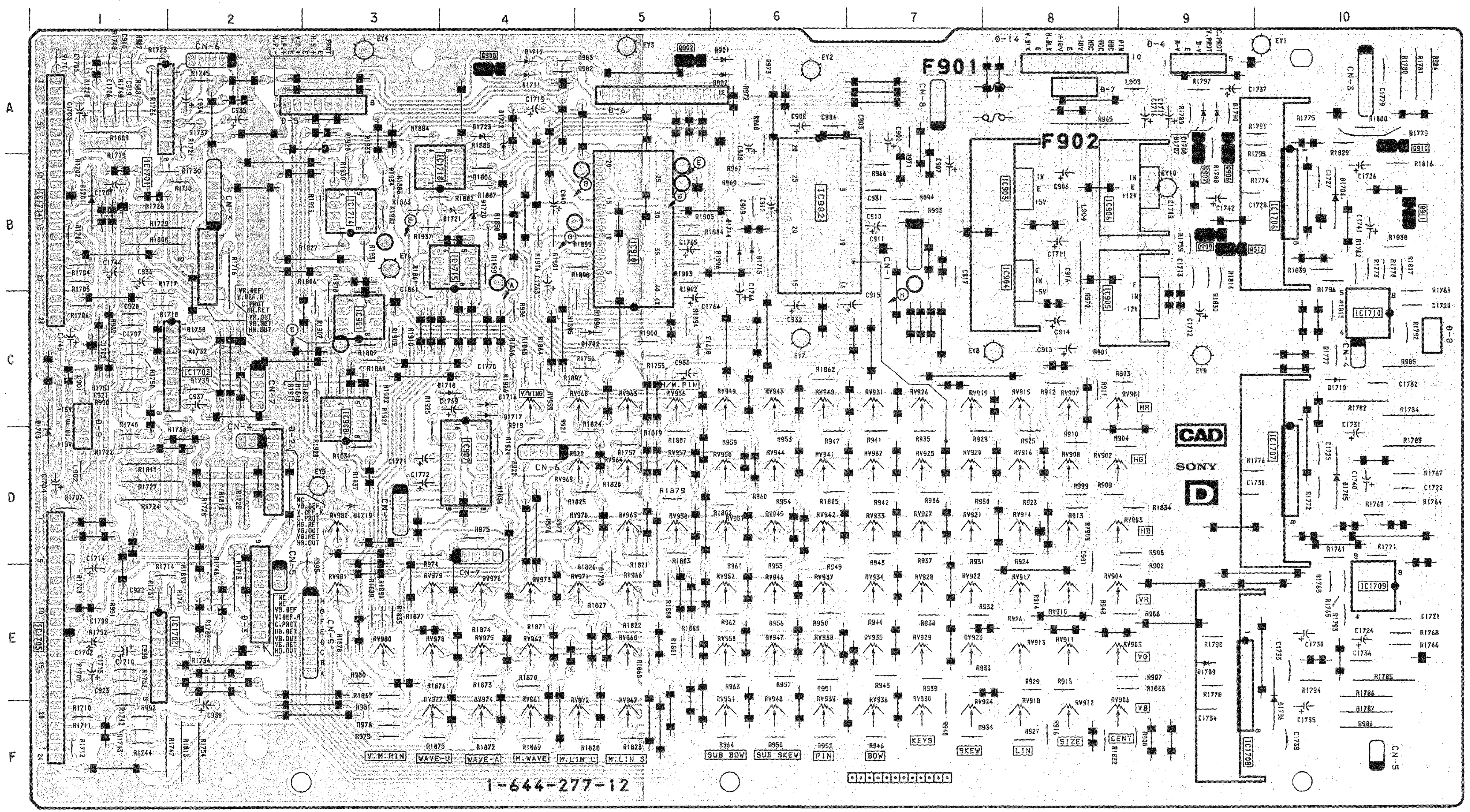
B-SS332.<U/C>-0..

D [REGISTRATION, DEFLECTION, V-OUT, SUB-OUT]

— D Board —

IC	
IC901	B-3
IC902	B-6
IC903	A-8
IC904	B-8
IC905	B-9
IC906	A-9
IC907	C-4
IC908	C-3
IC910	B-5
IC1701	A-1
IC1702	C-2
IC1703	E-1
IC1704	B-1
IC1705	E-1
IC1706	B-10
IC1707	D-10
IC1708	E-9
IC1709	D-10
IC1710	B-10
IC1714	B-3
IC1715	B-4
IC1718	A-4
TRANSISTOR	
Q902	A-5
Q906	A-9
Q907	A-9
Q908	A-4
Q909	B-9
Q910	A-11
Q911	B-11
Q912	B-9
DIODE	
D901	A-6
D902	A-6
D1701	B-1
D1702	C-5
D1703	C-1
D1704	B-10
D1705	D-10
D1706	E-10
D1707	A-9
D1708	A-9
D1709	E-9
D1710	C-10
D1711	A-4
D1712	A-4
D1713	C-5
D1714	B-6
D1715	B-6
D1716	C-4
D1717	C-4
D1718	C-4
D1720	B-4
D1721	B-4
D1722	A-4
D1723	A-4
VARIABLE RESISTOR	
RV901	C-9
RV902	D-9
RV903	D-9
RV904	D-9
RV905	E-9
RV906	E-9
RV907	C-8
RV908	D-8
RV909	D-8
RV910	D-8
RV911	E-8
RV912	E-8
RV913	E-8
RV914	D-8
RV915	C-8
RV916	D-8
RV917	E-8
RV918	E-8
RV919	C-7
RV920	D-7
RV921	D-7
RV922	D-7
RV923	E-7
RV924	E-7
RV925	D-7
RV926	C-7
RV927	D-7
RV928	D-7
RV929	E-7
RV930	E-7
RV931	C-7
RV932	D-7
RV933	D-7
RV934	D-7
RV935	E-7
RV936	E-7
RV937	D-6
RV938	E-6
RV939	E-6
RV940	C-6
RV941	D-6
RV942	D-6
RV943	C-6
RV944	D-6
RV945	D-6
RV946	D-6
RV947	E-6
RV948	E-6
RV949	C-6
RV950	D-6
RV951	D-6
RV952	E-6
RV953	E-6
RV954	E-6
RV956	C-5
RV957	D-5
RV958	D-5
RV959	C-4
RV960	E-5
RV961	E-4
RV962	E-4
RV963	C-5
RV964	D-5
RV965	D-5
RV966	D-5
RV967	E-5
RV968	C-5
RV969	D-5
RV970	D-5
RV971	D-5
RV972	E-5
RV973	D-4
RV974	E-4
RV975	E-4
RV976	D-4
RV978	E-3
RV979	D-3
RV980	E-3
RV981	D-3
RV982	D-3

— D Board —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9
10
A
B
C
D
E
F
F901
F902
CN-6
CN-8
IC901
IC902
IC1710
IC1709
CAD
SONY
D
HR
HB
VR
VG
VB
V.M.PIN
WAVE-U
WAVE-A
H.WAVE
H.LIN L
H.LIN S
SUB BOW
SUB SKEW
PIN
BOW
KEYS
SKEW
LIN
SIZE
CENT
1-644-277-12

G [POWER SUPPLY]

— G Board —

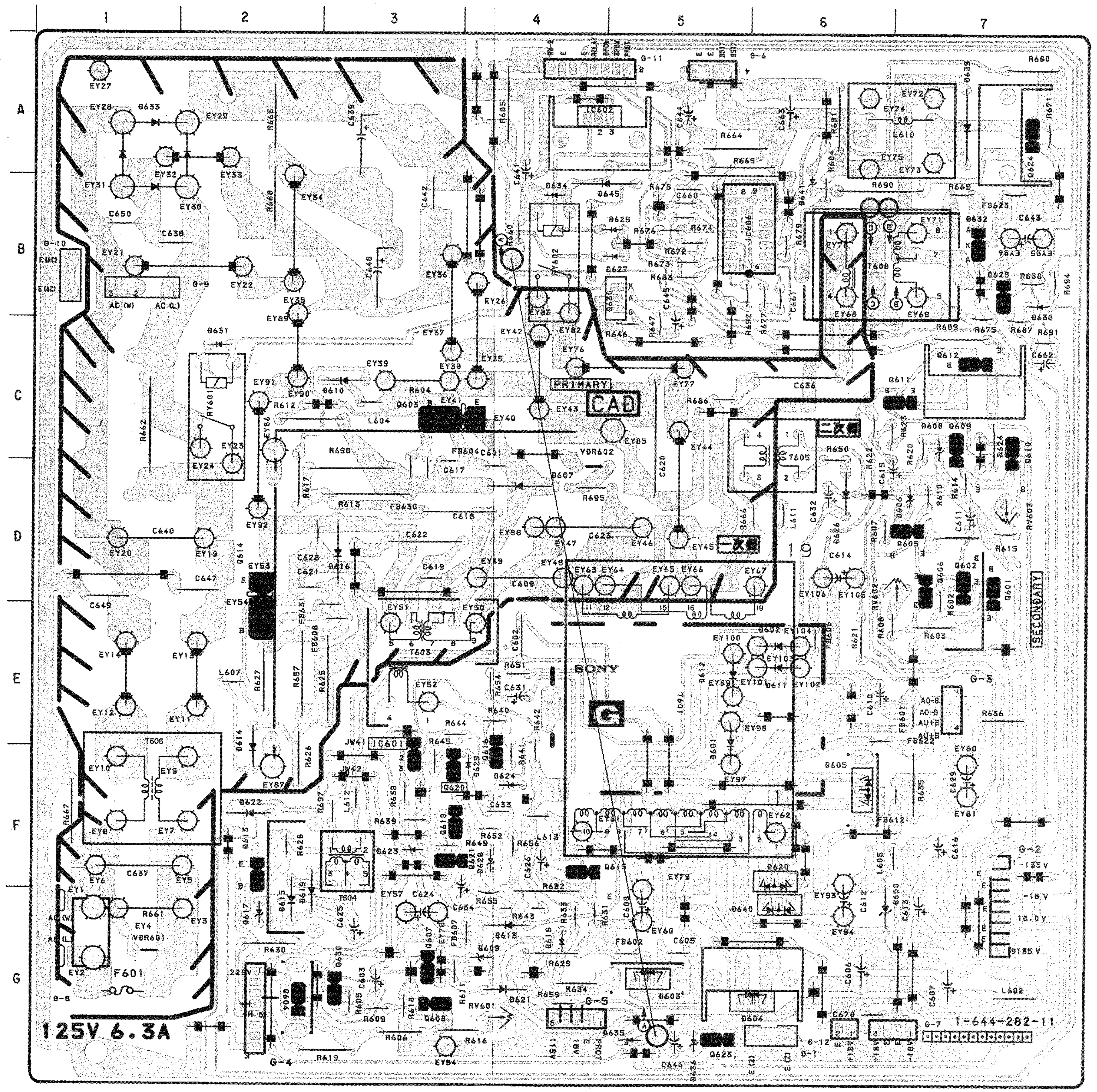
IC	
IC601	E-3
IC602	A-4
IC606	B-6

TRANSISTOR	
Q601	D-7
Q602	D-7
Q603	C-3
Q604	G-2
Q605	D-7
Q606	D-7
Q607	G-3
Q608	G-3
Q609	C-7
Q610	C-7
Q611	C-7
Q612	C-7
Q613	F-2
Q614	E-2
Q615	F-4
Q616	F-4
Q618	F-3
Q620	F-3
Q621	F-3
Q623	H-5
Q624	A-8
Q629	B-7
Q630	G-3

DIODE	
D601	E-5
D602	E-6
D603	G-5
D604	G-6
D605	F-6
D606	D-7
D607	D-4
D608	C-7
D609	G-4
D610	C-3
D611	E-6
D612	E-5
D613	G-4
D614	F-2
D615	G-2
D616	D-3
D617	G-2
D618	G-4
D619	G-2
D620	F-6
D621	G-4
D622	F-2
D623	F-3
D624	F-4
D625	B-5
D626	D-6
D627	B-5
D628	F-4
D629	F-4
D630	B-5
D631	C-2
D632	B-7
D633	A-1
D634	B-4
D635	H-5
D636	H-5
D638	B-8
D639	A-7
D640	G-6
D645	B-5
D650	G-7

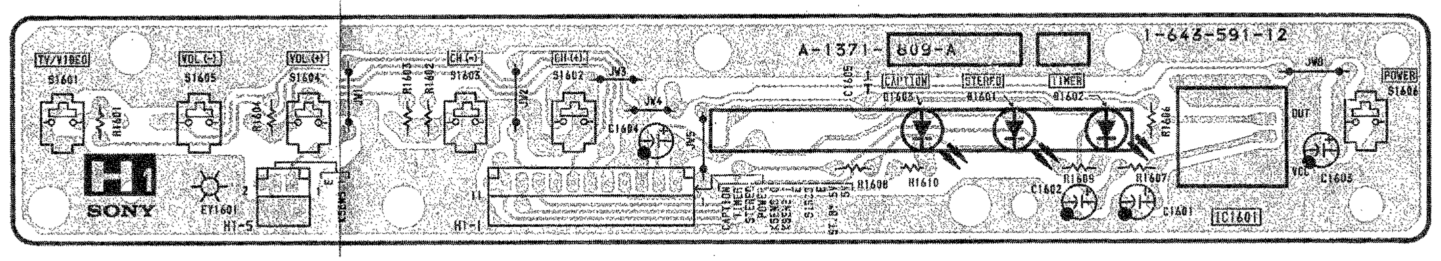
VARIABLE RESISTOR	
RV601	G-4
RV602	D-7
RV603	D-7

— G Board —

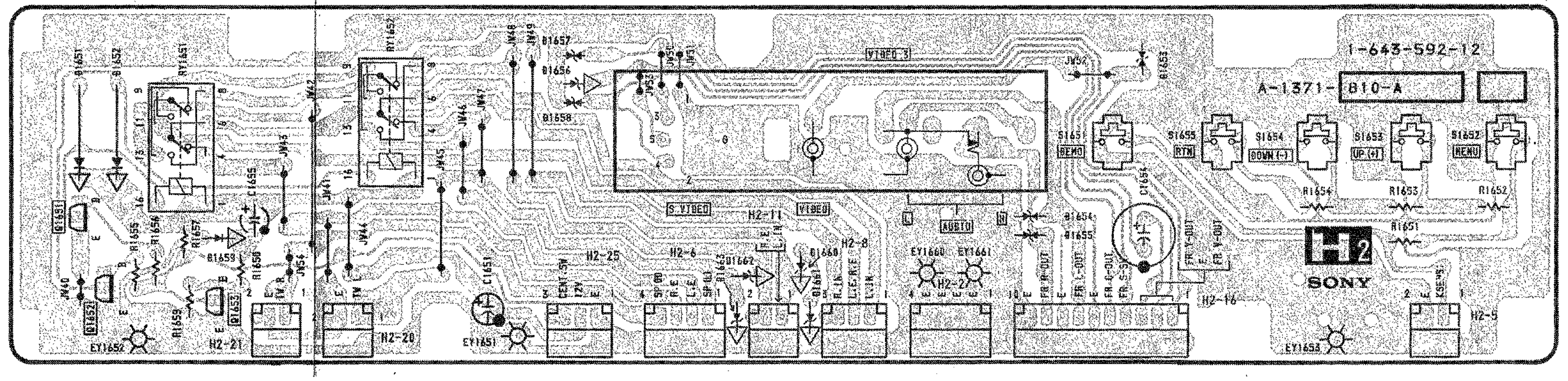

1
2
3
4
5
6
7
A
B
C
D
E
F
G
PRIMARY
CAD
SECONDARY
SONY
G
125V 6.3A
1-644-282-11
-135 V
-18 V
18.0 V
135 V

H1 [USER CONTROL] H2 [USER CONTROL] DS [SIN. WAVE, GEN]

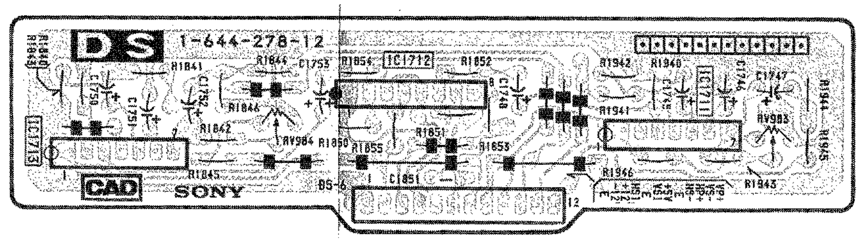
— H1 Board —

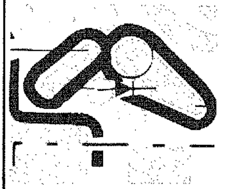

A-1371-809-A
1-643-591-12
H1
SONY
IC1601

— H2 Board —

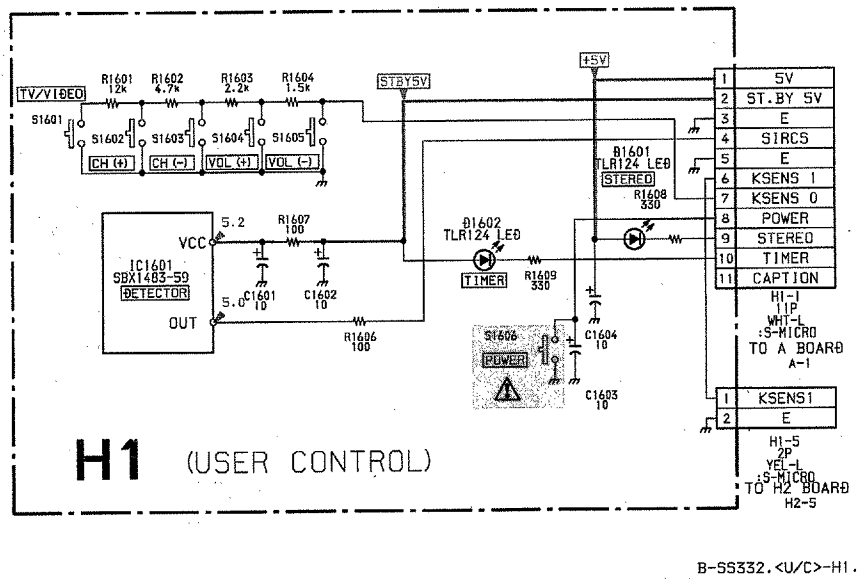

1-643-592-12
A-1371-810-A
H2
SONY

— DS Board —

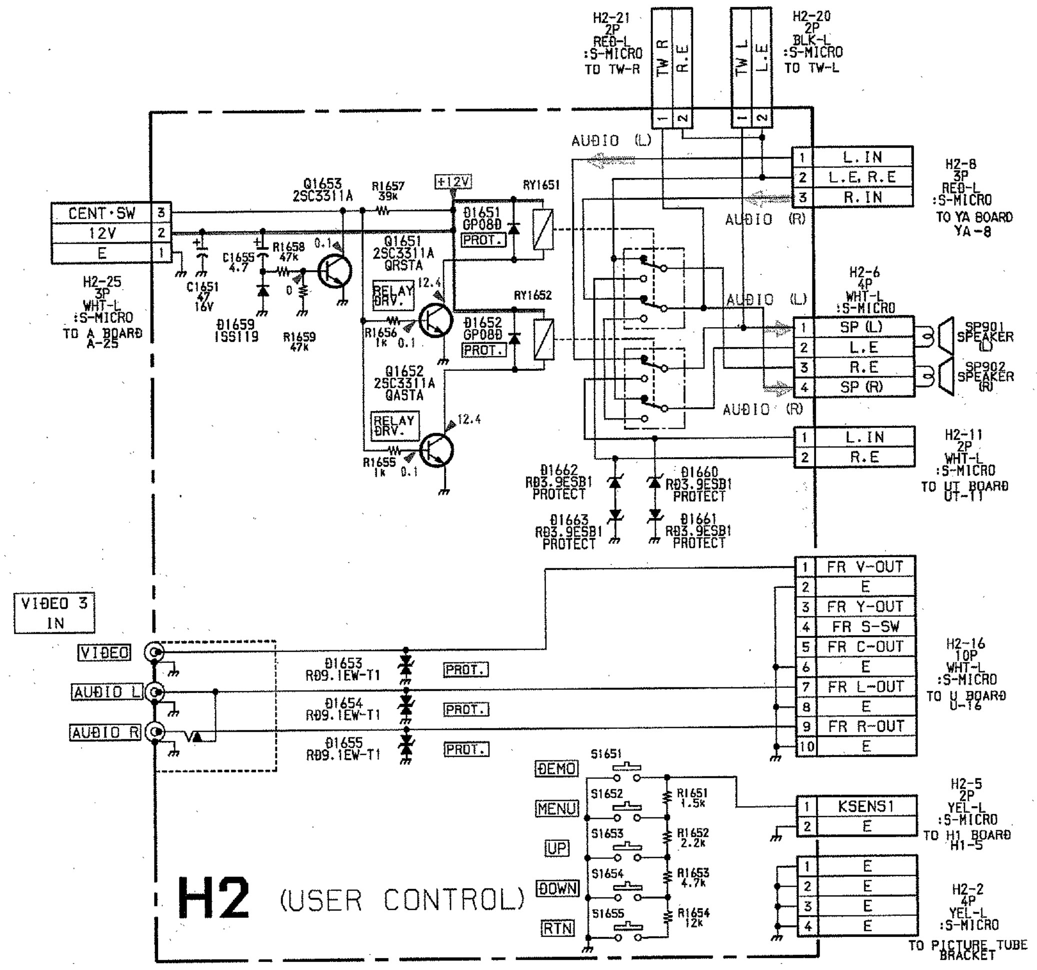

DS
1-644-278-12
IC1712
CAD
SONY



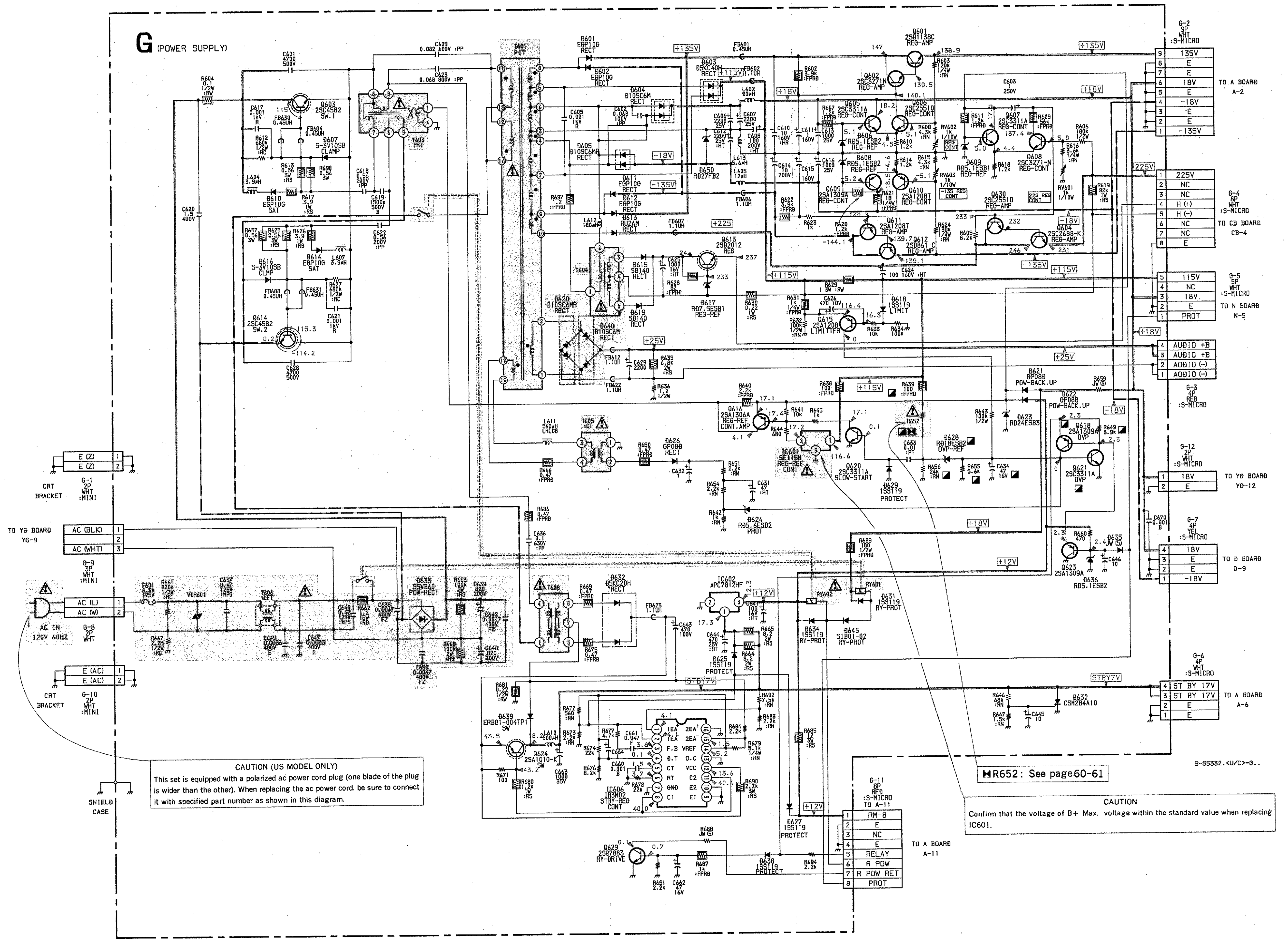
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.


H1 (USER CONTROL)
TV/VIDEO
CH (+)
CH (-)
VOL (+)
VOL (-)
IC1601 SBX1485-50 DETECTOR
D1602 TLR124 LED TIMER
D1601 TLR124 LED STEREO
S1606 POWER
STBY5V
+5V
1 5V
2 ST.BY 5V
3 E
4 SIRCS
5 E
6 KSENS 1
7 KSENS 0
8 POWER
9 STEREO
10 TIMER
11 CAPTION
H1-1 11P WHT-L :S-MICRO TO A BOARD A-1
1 KSENS1
2 E
H1-5 2P YEL-L :S-MICRO TO H2 BOARD H2-5

B-SS332.<U/C>-H1.


H2 (USER CONTROL)
H2-21 2P RED-L :S-MICRO TO TW-R
H2-20 2P BLK-L :S-MICRO TO TW-L
CENT-SW
12V
E
H2-25 3P WHT-L :S-MICRO TO A BOARD A-25
AUDIO (L)
AUDIO (R)
Q1653 2SC3311A
Q1651 2SC3311A GAS7A
Q1652 2SC3311A GAS7A
RELAY DRV.
PROT.
RY1651
RY1652
1 L.IN
2 L.E.R.E
3 R.IN
H2-8 3P RED-L :S-MICRO TO YA BOARD YA-8
H2-6 4P WHT-L :S-MICRO
1 SP (L)
2 L.E
3 R.E
4 SP (R)
SP901 SPEAKER (L)
SP902 SPEAKER (R)
1 L.IN
2 R.E
H2-11 2P WHT-L :S-MICRO TO UT BOARD UT-11
D1662 RD3.9ESB1 PROTECT
D1660 RD3.9ESB1 PROTECT
D1663 RD3.9ESB1 PROTECT
D1661 RD3.9ESB1 PROTECT
VIDEO 3 IN
VIDEO
AUDIO L
AUDIO R
D1653 RD9.1EV-T1
D1654 RD9.1EV-T1
D1655 RD9.1EV-T1
1 FR V-OUT
2 E
3 FR Y-OUT
4 FR S-SW
5 FR C-OUT
6 E
7 FR L-OUT
8 E
9 FR R-OUT
10 E
H2-16 10P WHT-L :S-MICRO TO U BOARD U-16
DEMO
MENU
UP
DOWN
RTN
1 KSENS1
2 E
H2-5 2P YEL-L :S-MICRO TO H1 BOARD H1-5
H2-2 4P YEL-L :S-MICRO TO PICTURE TUBE BRACKET

B-SS332.<U/C>-H2.


G (POWER SUPPLY)
T601 PIT
Q603 2SC4582 SW.1
Q614 2SC4582 SW.2
D607 S-3V10SB CLAMP
D616 S-3V10SB CLMP
Q601 2SD1138C REG-AMP
Q602 2SC3271N REG-AMP
Q605 2SC3311A REG-CONT
Q606 2SC2551D REG-CONT
Q607 2SC3311A REG-CONT
Q608 2SC3271-N REG-CONT
Q609 2SA1309A REG-CONT
Q610 2SA1208T REG-CONT
Q611 2SA1208T REG-AMP
Q612 2SB861-C REG-AMP
Q630 2SC2551D REG-AMP
Q631 2SC2688-K REG-AMP
Q613 2SD2012 REG
Q615 2SA1208 LIMITTER
Q616 2SA1309A CONT.AMP
Q618 2SA1309A OVP
Q620 2SC3311A SLOW-START
Q621 2SC3311A OVP
Q623 2SA1309A
Q624 2SA1010-K SW
Q629 2SD882 RY-DRIVE
IC601 SE115N REG-REF CONT
IC602 μPC7812HF REG
IC604 IRS2002 STBY-REG CONT
135V
18V
-18V
-135V
+115V
+225V
+25V
+12V
STBY7V
G-2 9P WHT :S-MICRO TO A BOARD A-2
G-4 8P WHT :S-MICRO TO CB BOARD CB-4
G-5 5P WHT :S-MICRO TO N BOARD N-5
G-3 4P RED :S-MICRO
1 AUDIO +B
2 AUDIO +B
3 AUDIO (-)
4 AUDIO (-)
G-12 2P WHT :S-MICRO TO YO BOARD YO-12
G-7 4P YEL :S-MICRO TO D BOARD D-9
G-6 4P WHT :S-MICRO TO A BOARD A-6
1 ST BY 17V
2 ST BY 17V
3 E
4 E
G-11 8P RED :S-MICRO TO A-11
1 RM-B
2 E
3 NC
4 E
5 RELAY
6 R POW
7 R POW RET
8 PROT
TO A BOARD A-11
E (Z)
G-1 2P WHT :MINI
CRT BRACKET
TO YO BOARD YO-9
AC (BLK)
AC (WHT)
G-9 3P WHT :MINI
AC (L)
AC (W)
G-8 2P WHT
AC IN 120V 60HZ
E (AC)
G-10 2P WHT :MINI
CRT BRACKET
SHIELD CASE

CAUTION (US MODEL ONLY)

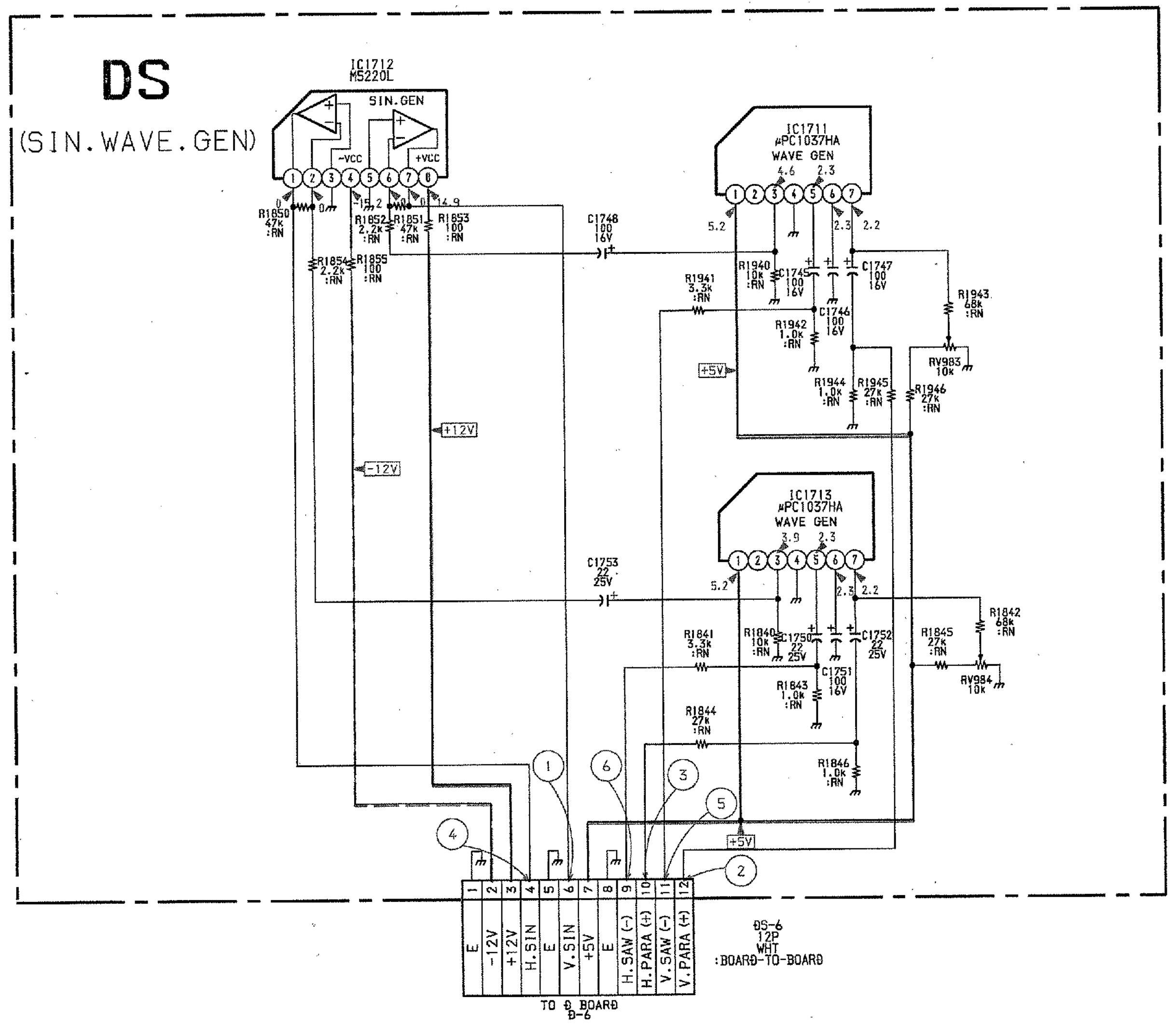
This set is equipped with a polarized ac power cord plug (one blade of the plug is wider than the other). When replacing the ac power cord. be sure to connect it with specified part number as shown in this diagram.

R652: See page60-61

CAUTION

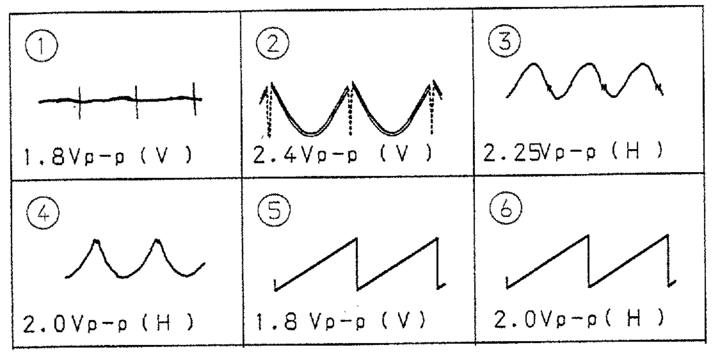
Confirm that the voltage of B+ Max. voltage within the standard value when replacing IC601.

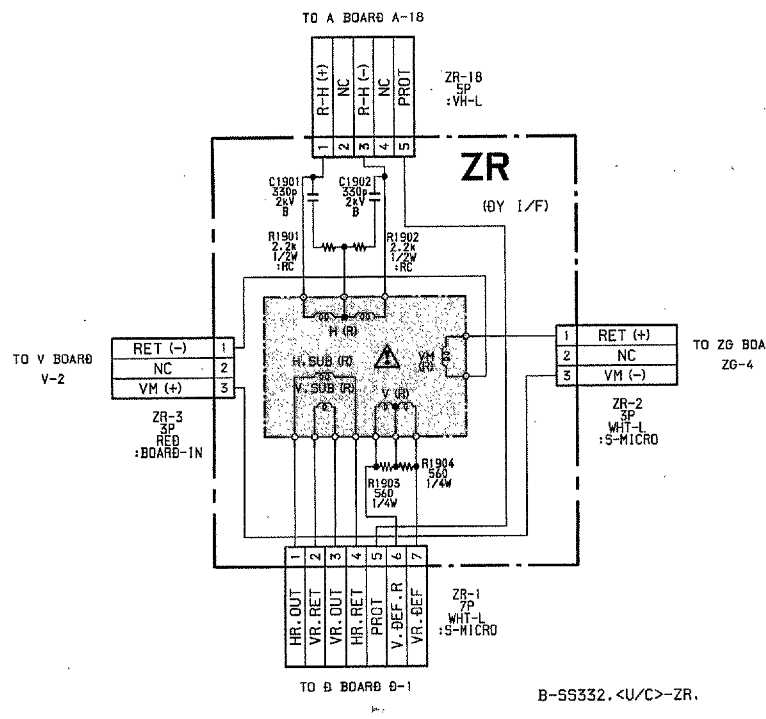
B-SS332.<U/C>-G.


DS (SIN.WAVE.GEN)
IC1712 M5220L SIN.GEN
IC1711 μPC1037HA WAVE GEN
IC1713 μPC1037HA WAVE GEN
+5V
+12V
-12V
1 E
2 -12V
3 +12V
4 H.SIN
5 E
6 V.SIN
7 +5V
8 E
9 H.PARA (-)
10 H.SAW (-)
11 V.SAW (+)
12 V.PARA (+)
DS-6 12P WHT :BOARD-TO-BOARD TO G BOARD G-6

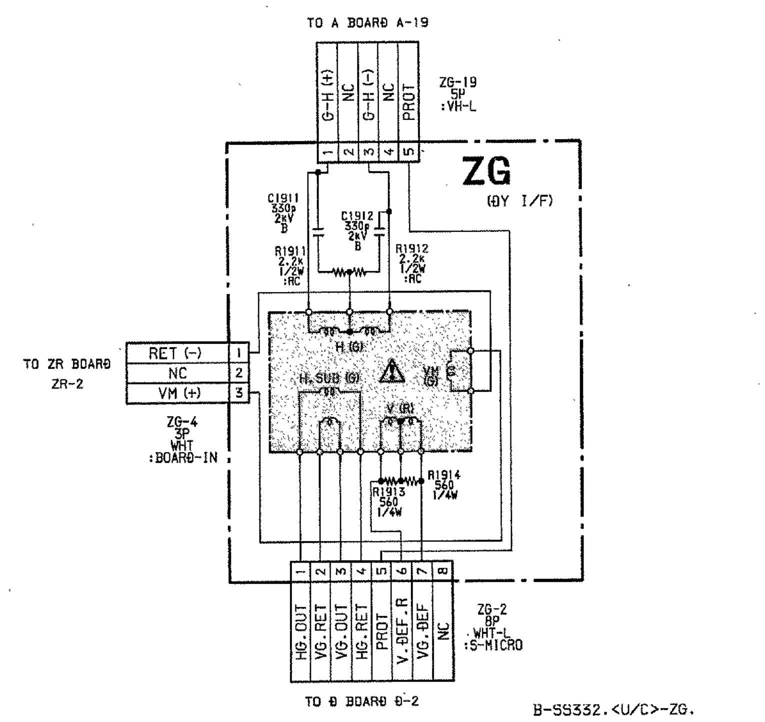
B-SS332.<U/C>-DS.

— DS Board —

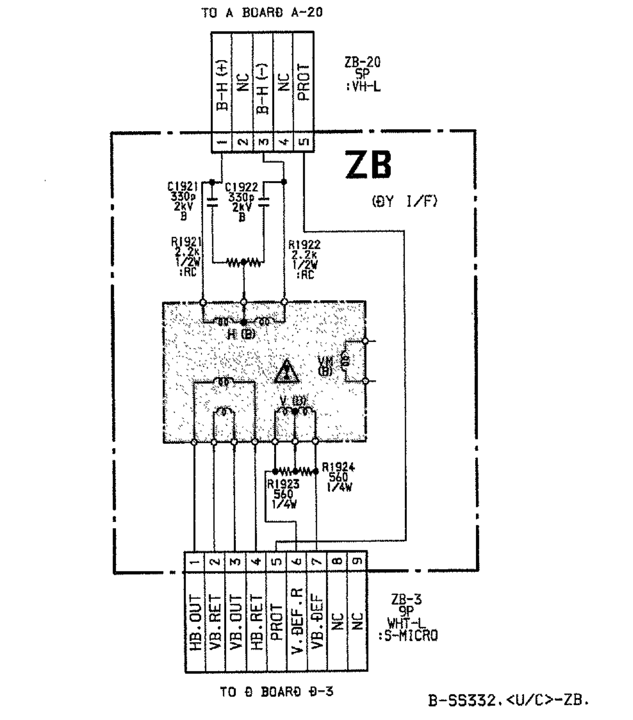

①
1.8Vp-p (V)
②
2.4Vp-p (V)
③
2.25Vp-p (H)
④
2.0Vp-p (H)
⑤
1.8 Vp-p (V)
⑥
2.0Vp-p (H)


ZR
(DY I/F)
TO A BOARD A-18
ZR-1B 5P :VH-L
TO V BOARD V-2
TO ZG BOARD ZG-4
TO G BOARD G-1

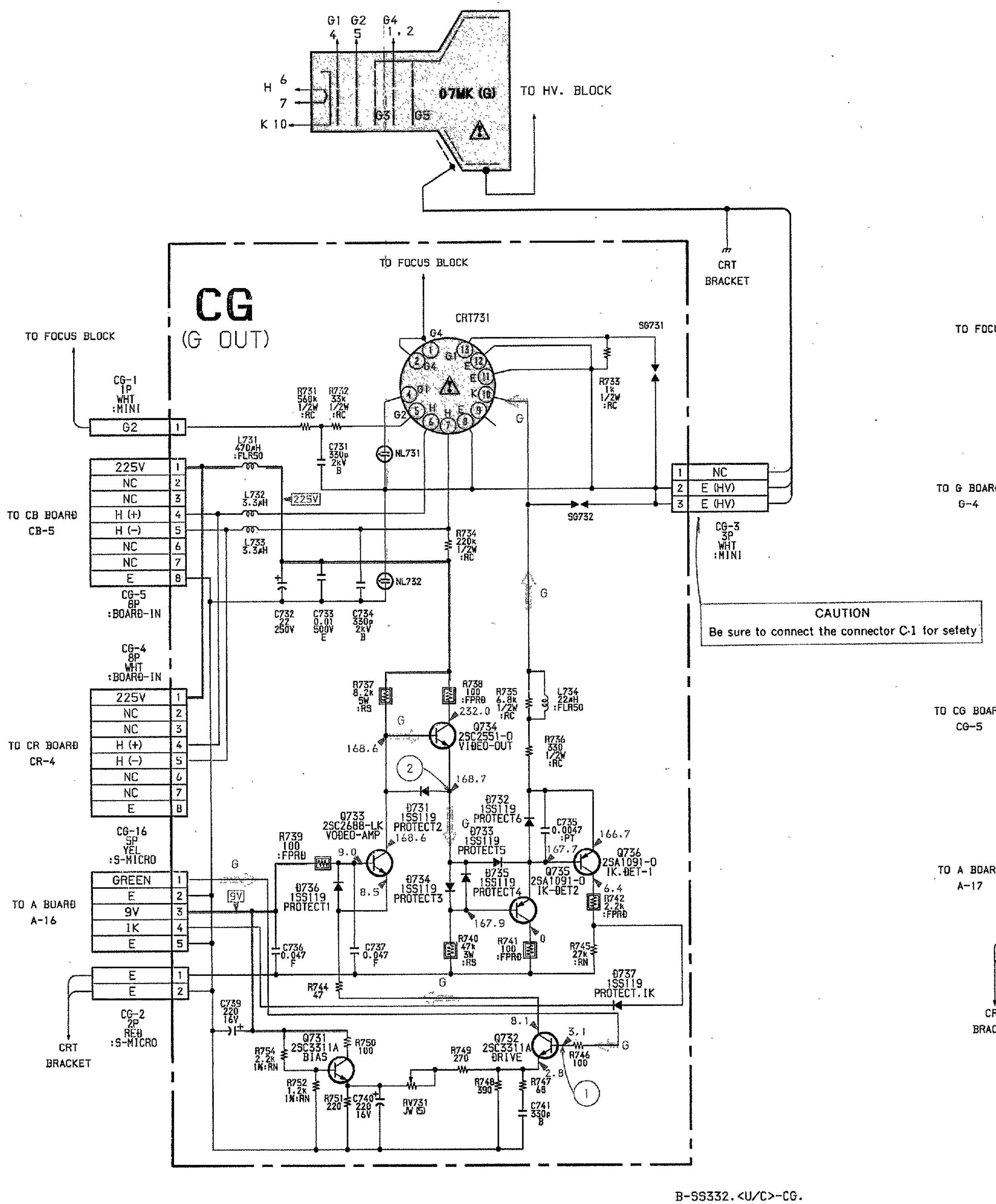
B-SS332.<U/C>-ZR.


ZG
(DY I/F)
TO A BOARD A-19
TO ZR BOARD ZR-2
TO G BOARD G-2

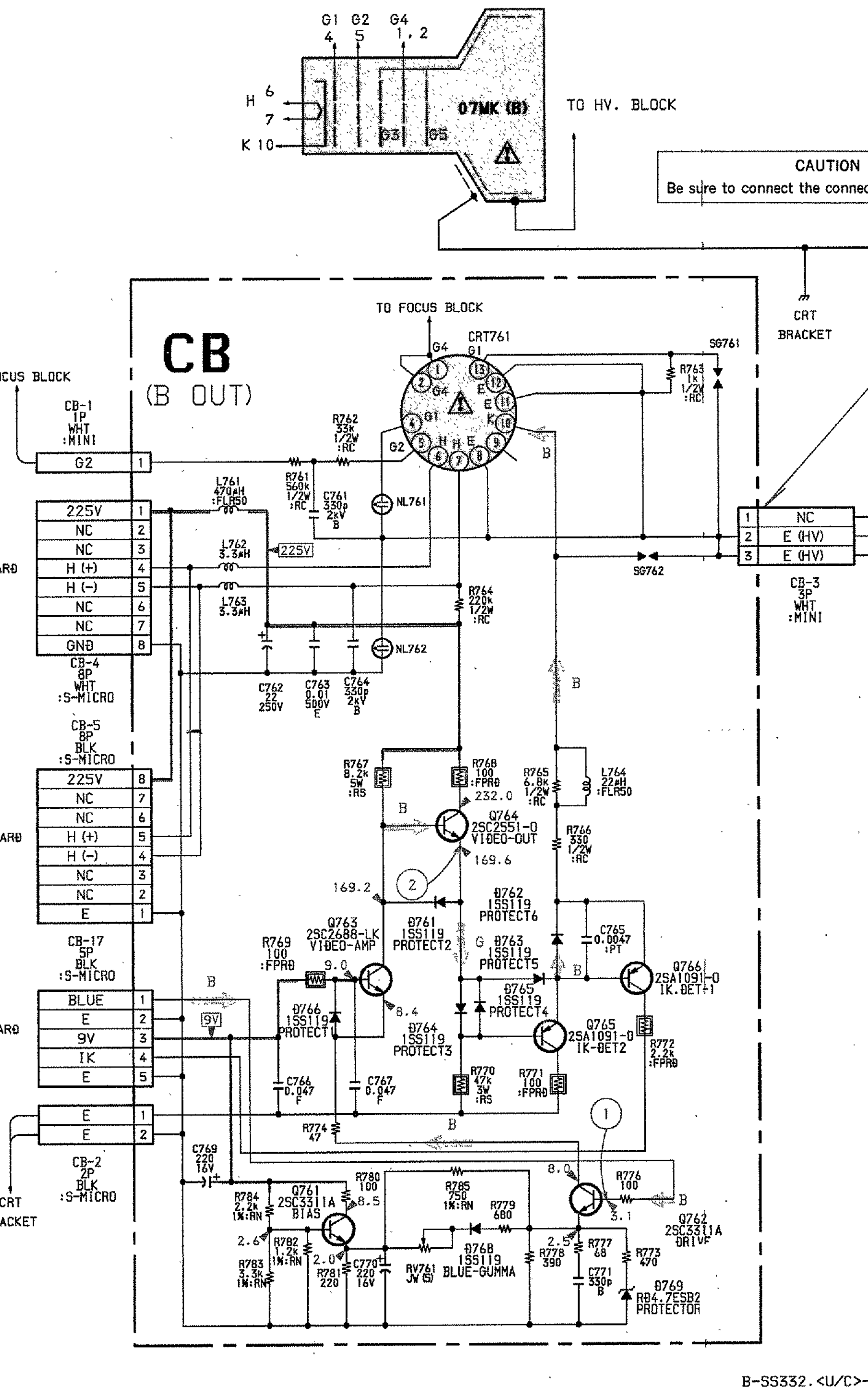
B-SS332.<U/C>-ZG.


ZB
(DY I/F)
TO A BOARD A-20
TO G BOARD G-3

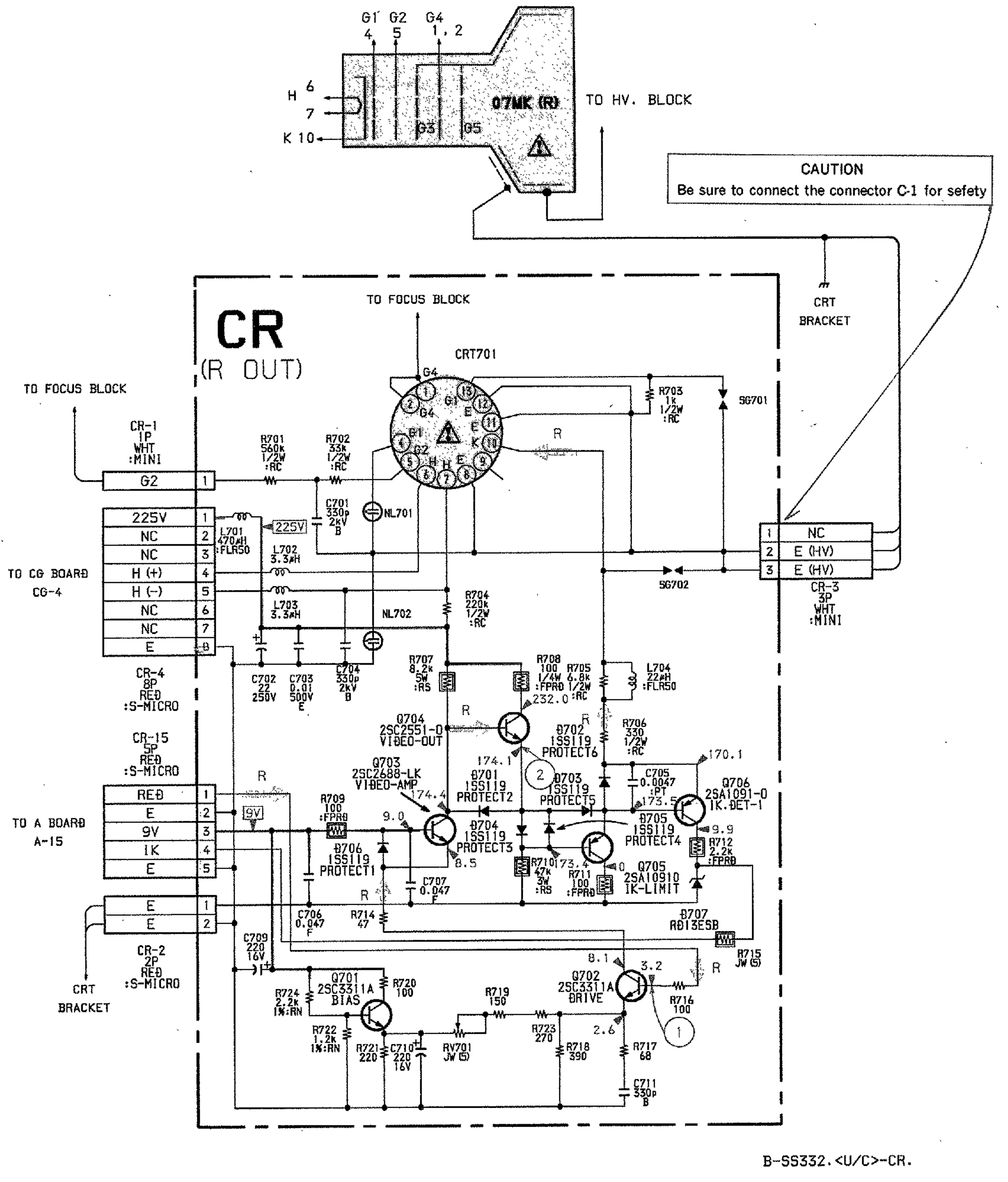
B-SS332.<U/C>-ZB.


CG
(G OUT)
07MK (G)
TO HV. BLOCK
TO FOCUS BLOCK
CRT BRACKET
TO CB BOARD CB-5
TO CR BOARD CR-4
TO A BOARD A-16
CAUTION
Be sure to connect the connector C-1 for sefety

B-SS332.<U/C>-CG.

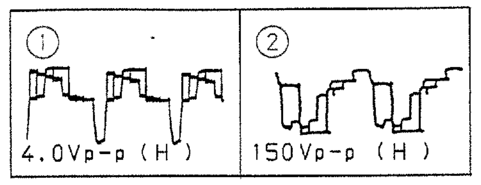

CB
(B OUT)
07MK (B)
TO HV. BLOCK
TO FOCUS BLOCK
CAUTION
Be sure to connect the connector C-1 for sefety
TO G BOARD G-4
TO CG BOARD CG-5
TO A BOARD A-17
CRT BRACKET

B-SS332.<U/C>-CB.

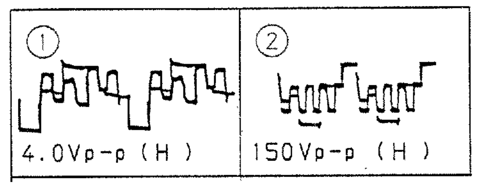

CR
(R OUT)
07MK (R)
TO HV. BLOCK
TO FOCUS BLOCK
CAUTION
Be sure to connect the connector C-1 for sefety
TO CG BOARD CG-4
TO A BOARD A-15
CRT BRACKET

B-SS332.<U/C>-CR.

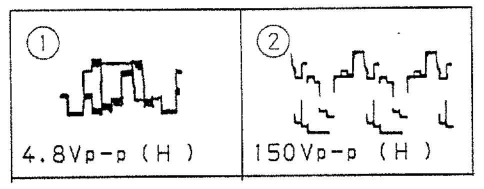
— CG Board —

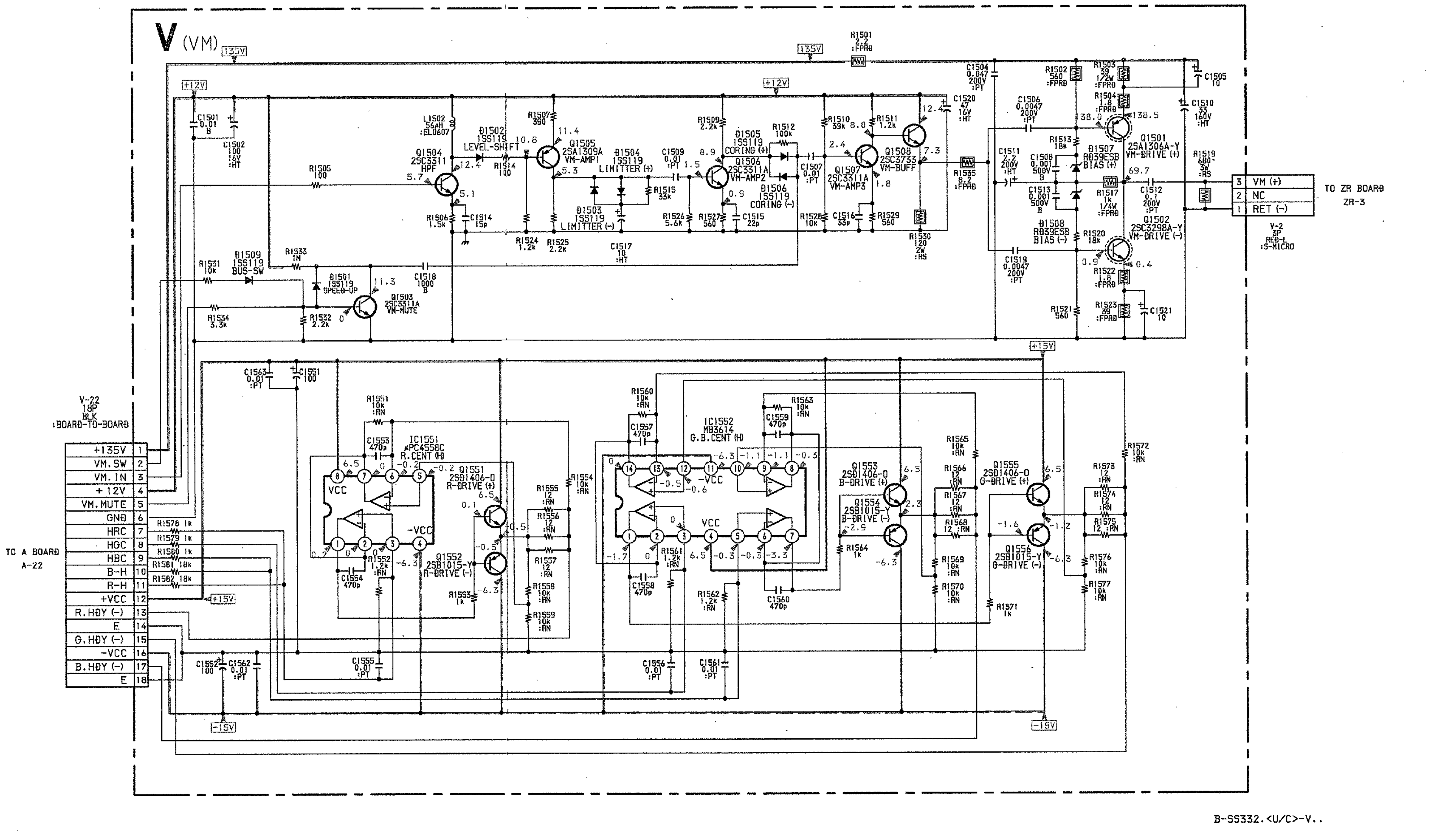


— CB Board —



— CR Board —

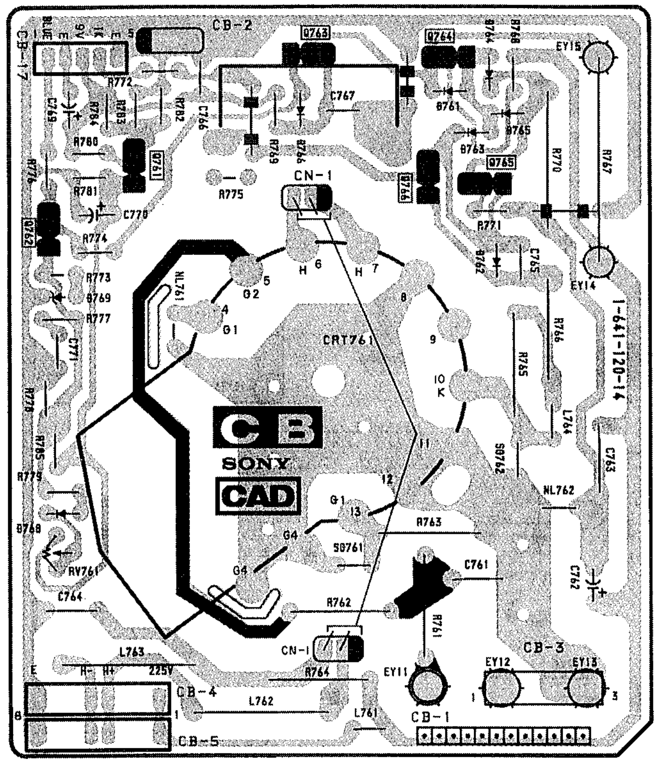



V (VM)
TO A BOARD A-22
TO ZR BOARD ZR-3

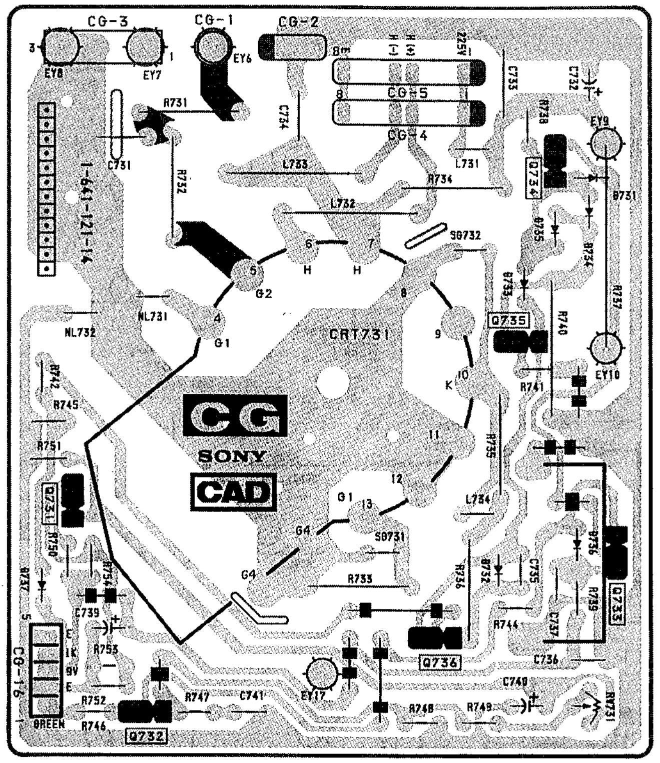
B-SS332.<U/C>-V..

CB [B OUT] **CG** [G OUT] **CR** [R OUT] **V** [VM] **ZB** [DY I/F] **ZG** [DY I/F] **ZR** [DY I/F]

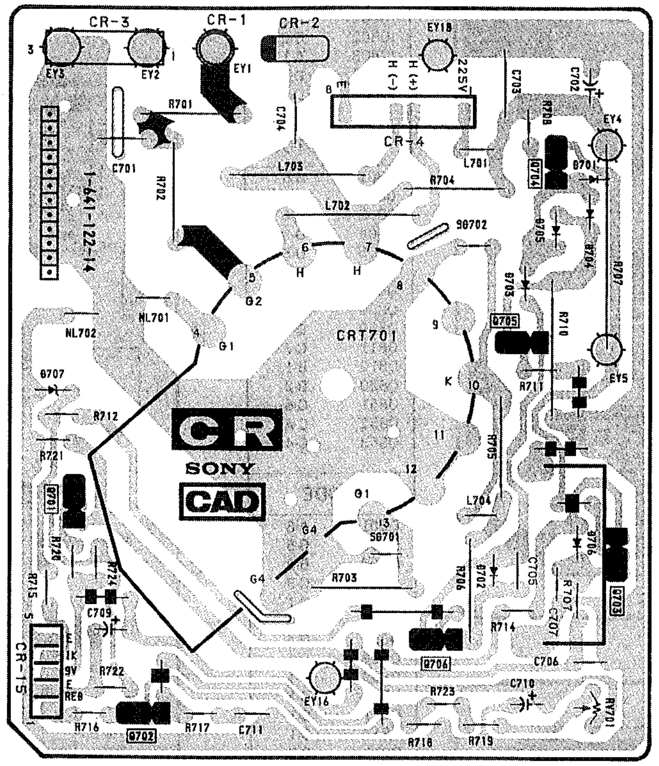
— CB Board —


CB-2
CB-17
1-641-120-14
CN-1
CRT761
CB
SONY
CAD
EY15
EY14
EY11
EY12
EY13
CB-3
CB-4
CB-5
CB-1
L763
L762
L761
R764
R762
R763
C761
C762
C763
C764
S0761
S0762
NL761
NL762
RV761
G1
G2
G4
H
K

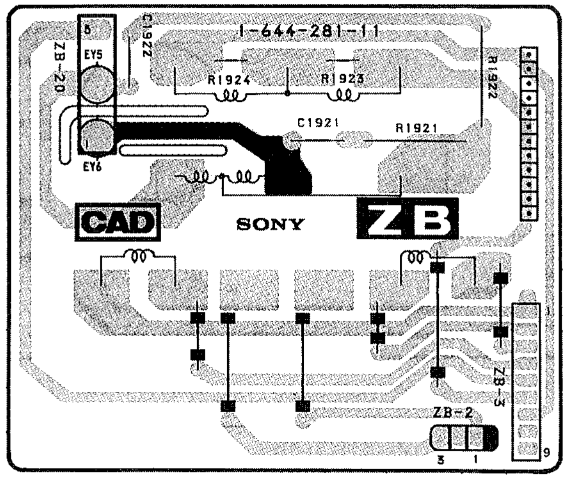
— CG Board —


CG-3
CG-1
CG-2
CG-4
CG-5
CG-15
1-641-121-14
CRT731
CG
SONY
CAD
EY6
EY7
EY8
EY9
EY10
EY17
L731
L732
L733
L734
NL731
NL732
S0731
S0732
Q732
Q733
Q734
Q735
Q736
RV731
GREEN
G1
G2
G4
H
K

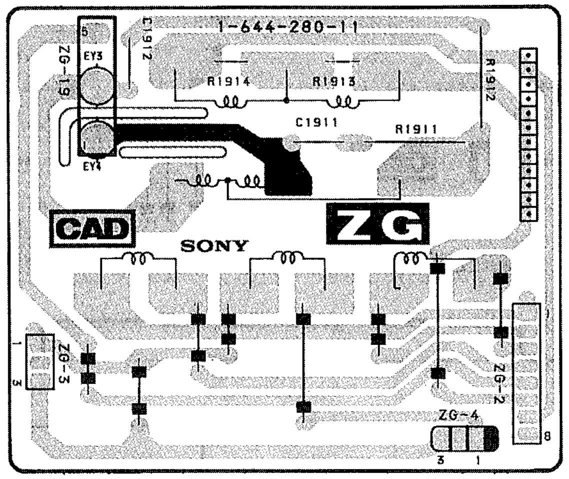
— CR Board —


CR-3
CR-1
CR-2
CR-4
CR-15
1-641-122-14
CRT701
CR
SONY
CAD
EY1
EY2
EY3
EY4
EY5
EY16
EY18
L701
L702
L703
L704
NL701
NL702
S0701
S0702
Q702
Q703
Q704
Q705
Q706
RV701
RED
G1
G2
G4
H
K

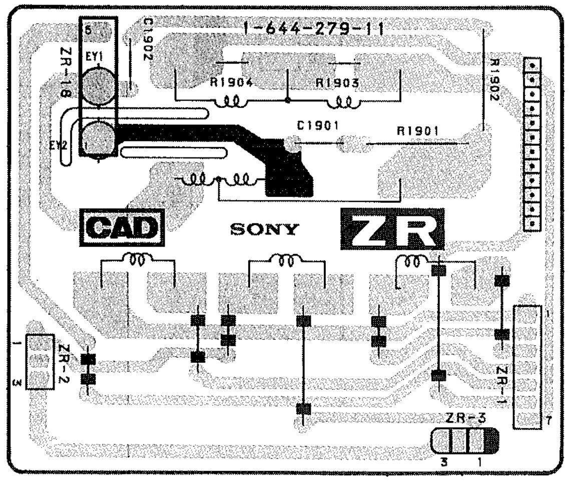
— ZB Board —


1-644-281-11
ZB-20
EY5
EY6
C1922
R1924
R1923
R1922
C1921
R1921
CAD
SONY
ZB
ZB-2
ZB-3

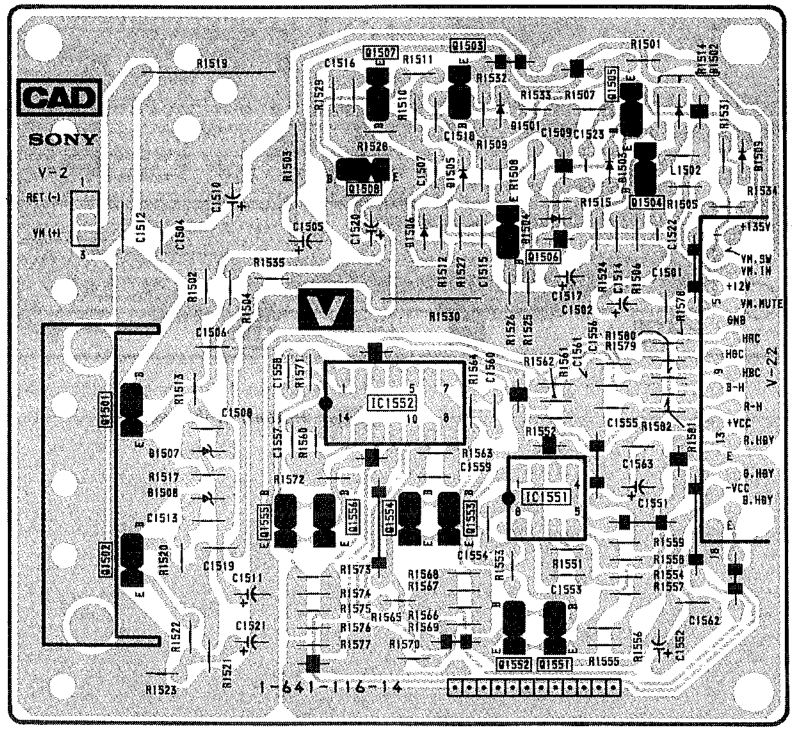
— ZG Board —

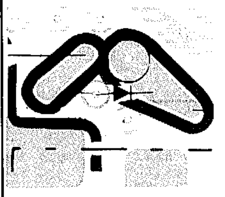

1-644-280-11
ZG-19
EY3
EY4
C1912
R1914
R1913
R1912
C1911
R1911
CAD
SONY
ZG
ZG-2
ZG-3
ZG-4

— ZR Board —


1-644-279-11
ZR-18
EY1
EY2
C1902
R1904
R1903
R1902
C1901
R1901
CAD
SONY
ZR
ZR-1
ZR-2
ZR-3

— V Board —

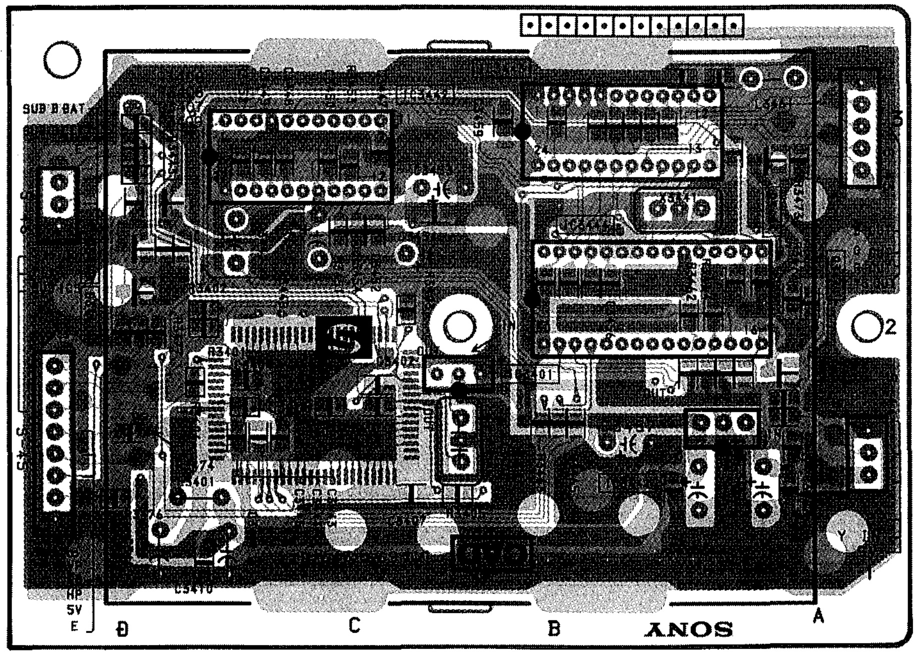

CAD
SONY
V-2
RET (-)
VM (+)
V
IC1552
IC1551
1-641-116-14
V-22
+135V
VM.SW
VM.1H
+12V
VM.MUTE
GND
HRC
HBC
B-H
R-H
+VCC
R.HBY
-VCC
G.HBY
B.HBY
L1502
Q1501
Q1502
Q1503
Q1504
Q1505
Q1506
Q1507
Q1508
Q1551
Q1552
Q1553
Q1554
Q1555
Q1556

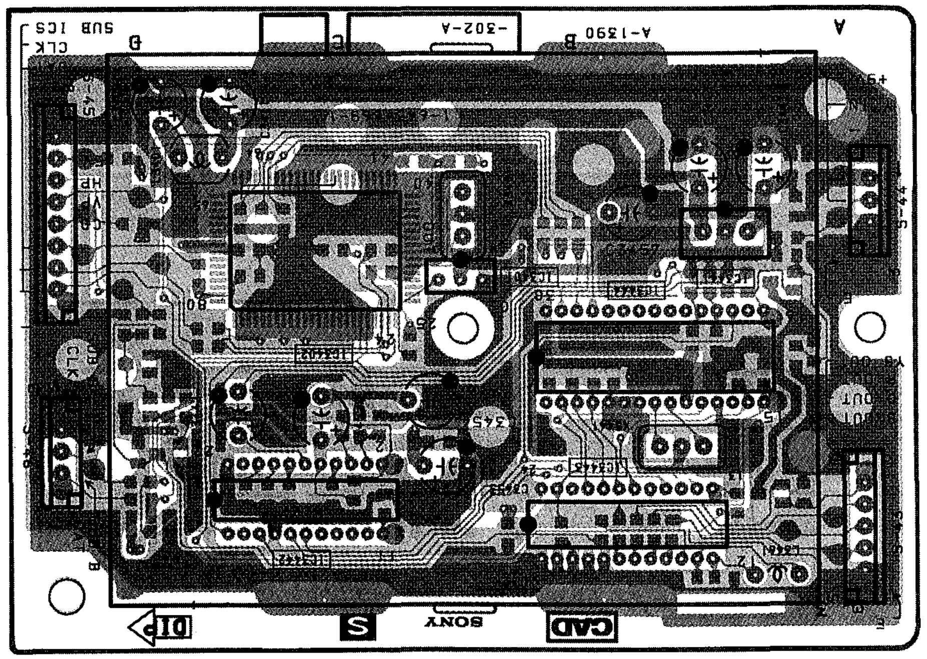


NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

S [SUB-CONTROL, MICRO COMPUTER]

— S Board —


SUB B BAT
HP
5V
E
D
C
B
A
SONY


SUB ICS
CLK
D
-302-A
A-1390 B
A
S
SONY
CAD

- ▒ : Pattern from the side which enables seeing
- ▓ : Pattern of the rear side

N [H. V]

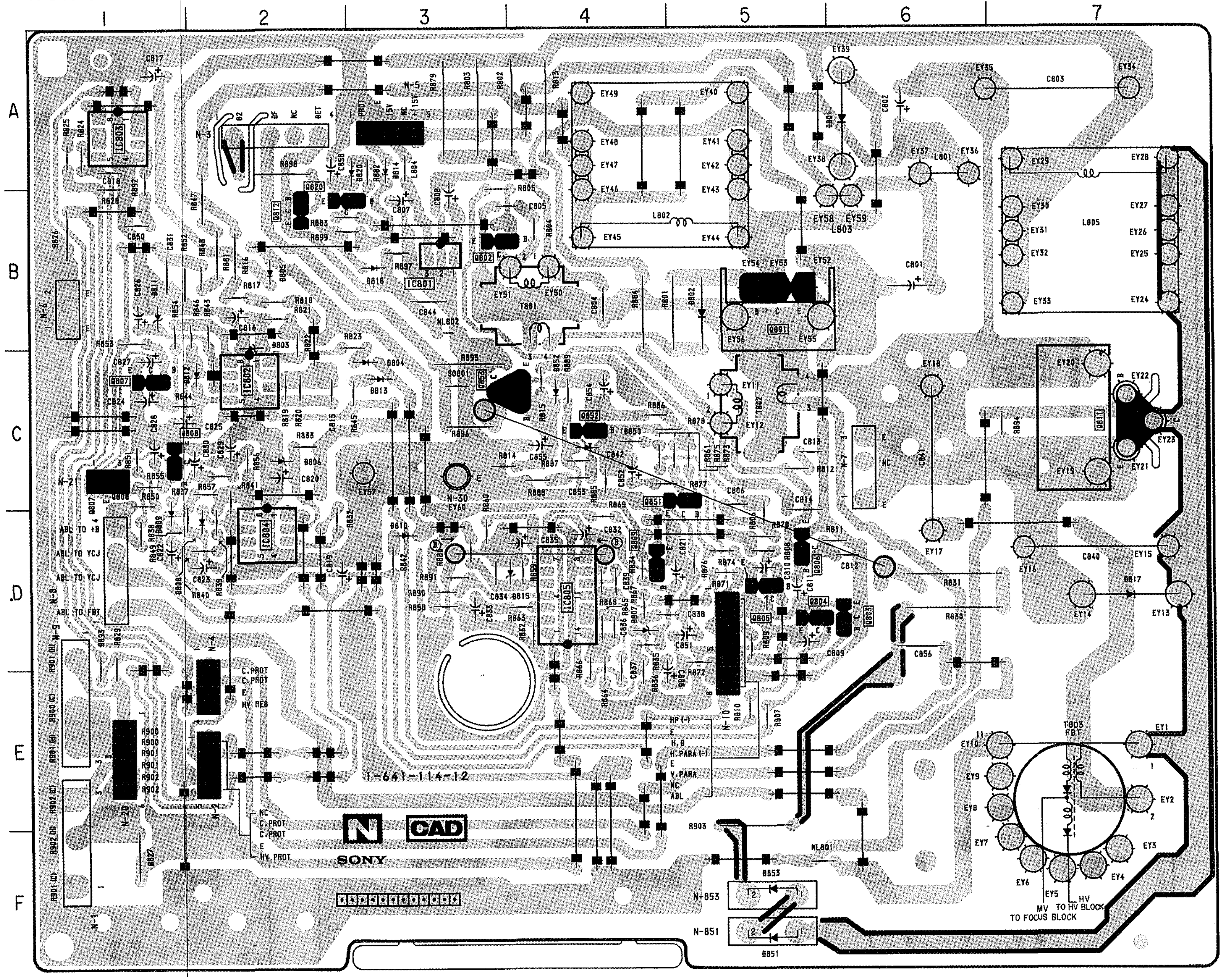
— N Board —

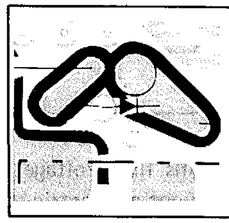
IC	
IC801	B-3
IC802	C-2
IC803	A-1
IC804	D-2
IC805	D-4

TRANSISTOR	
Q801	B-5
Q802	B-3
Q803	D-6
Q804	D-5
Q805	D-5
Q806	D-5
Q807	C-1
Q808	C-1
Q809	D-4
Q811	C-7
Q812	B-1
Q820	B-2
Q851	C-5
Q852	C-4
Q853	C-4

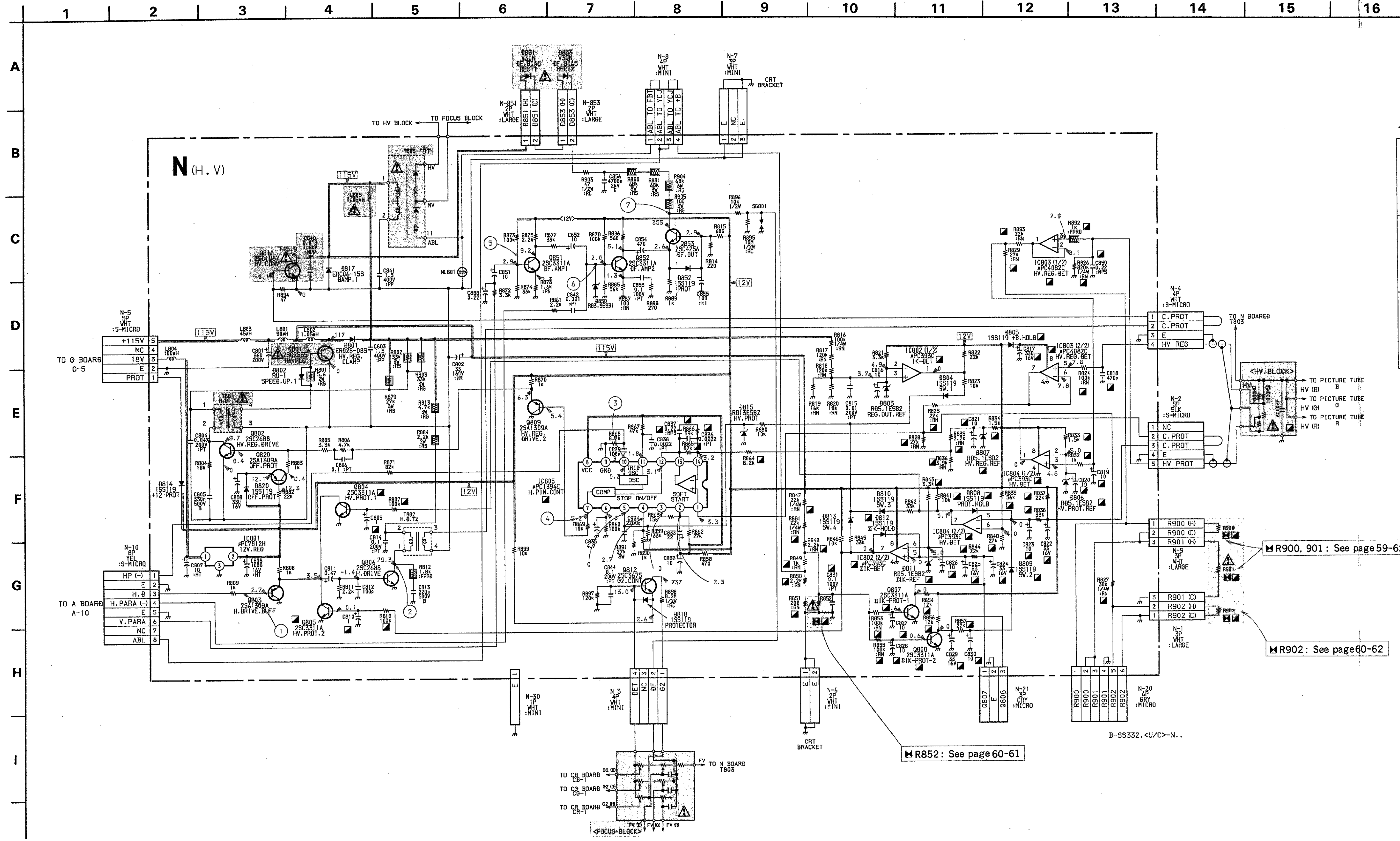
DIODE	
D801	A-6
D802	B-5
D803	B-2
D804	C-3
D805	B-1
D806	C-2
D807	D-4
D808	D-1
D809	D-1
D810	D-3
D811	B-1
D812	C-1
D813	C-3
D814	A-1
D815	D-4
D817	D-7
D818	B-3
D820	A-3
D850	C-4
D852	C-4

— N Board —


1
2
3
4
5
6
7
A
B
C
D
E
F
IC803
IC801
IC802
IC804
IC805
Q801
Q802
Q820
T801
T802
L801
L802
L803
L805
T803 FBT
ABL TO +B
ABL TO YCJ
ABL TO FBT
C.PROT
HV REG
HV PROT
H.PARA
V.PARA
ABL
1-641-114-12
N
CAD
SONY
N-853
N-851
MV TO HV BLOCK
TO FOCUS BLOCK



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

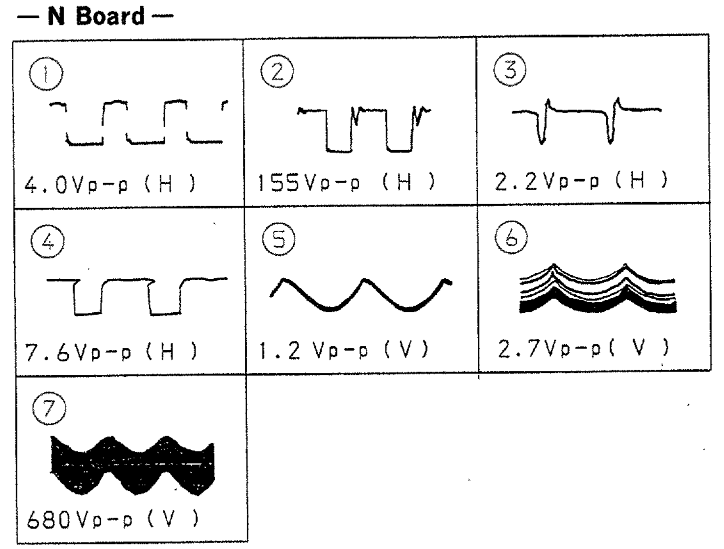

N (H.V)
TO HV BLOCK
TO FOCUS BLOCK
TO G BOARD G-5
N-5 5P WHT :S-MICRO
+115V
NC
18V
E
PROT
TO A BOARD A-10
N-10 8P YEL :S-MICRO
HP (-)
E
H.D
H.PARA (-)
E
V.PARA
NC
ABL
115V
12V
L803 45µH
L801 90µH
L802 1.05mH
L804 100µH
Q801 2SC2555 HV.REG
D801 ERD28-08S HV.REG. CLAMP
D802 RU-1 SPEED.UP.1
D817 ERC06-15S DAMP.1
T801 H.D.T
Q802 2SC2688 HV.REG.DRIVE
Q820 2SA1309A OFF.PROT
D820 1SS119 OFF.PROT
D814 1SS119 +12-PROT
IC801 µPC7812H 12V.REG
Q803 2SA1309A H.DRIVE.BUFF
Q805 2SC3311A HV.PROT.2
Q804 2SC3311A HV.PROT.1
Q806 2SC2688 H.DRIVE
Q811 2SD1650 HV.CONV
IC805 µPC1394C H.PIN.CONT
STOP ON/OFF
SOFT START
COMP
OSC
Q809 2SA1309A HV.REG. DRIVE.2
Q812 2SC3311A
Q818 1SS119 PROTECTOR
IC802 (1/2) µPC358C IK-SET
IC802 (2/2) µPC358C IK-RET
IC803 (1/2) µPC4082C HV.REG.DET
IC803 (2/2) µPC4082C HV.REG.SET
IC804 (1/2) µPC358C HV.SET
IC804 (2/2) µPC358C HV.DET
Q851 2SC3311A SF.AMP1
Q853 2SC3311A SF.AMP2
N-851 2P WHT :LARGE
N-853 3P WHT :LARGE
N-8 4P WHT :MINI
N-7 3P WHT :MINI
CRT BRACKET
N-4 4P WHT :S-MICRO
C.PROT
C.PROT
E
HV REG
TO N BOARD T803
<HV.BLOCK>
TO PICTURE TUBE B
TO PICTURE TUBE G
TO PICTURE TUBE R
N-2 5P BLK :S-MICRO
NC
C.PROT
C.PROT
E
HV PROT
R900 (H)
R900 (C)
R901 (H)
N-9 3P WHT :LARGE
R901 (C)
R902 (H)
R902 (C)
N-1 3P WHT :LARGE
N-3 4P WHT :MINI
N-30 1P WHT :MINI
N-6 3P WHT :MINI
N-21 3P GRY :MICRO
N-20 6P GRY :MICRO
TO CR BOARD
TO CG BOARD
TO CB BOARD
TO N BOARD T803
<FOCUS BLOCK>
B-SS332.<U/C>-N..

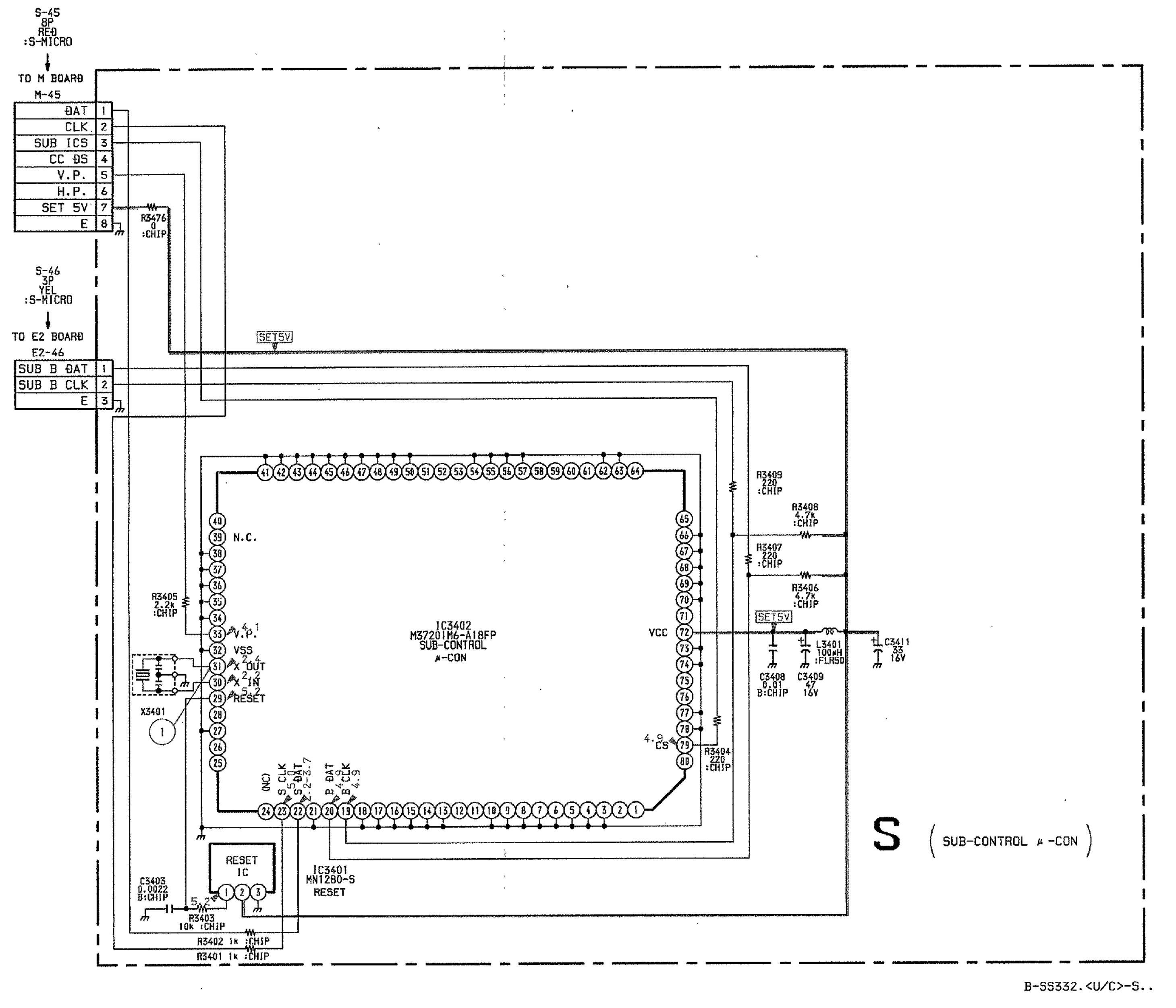
R900, 901: See page 59-62

R902: See page 60-62

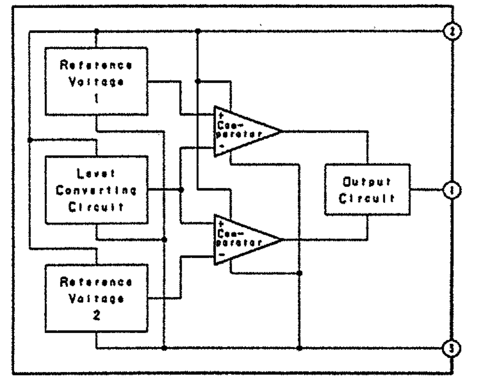
R852: See page 60-61

— N Board —

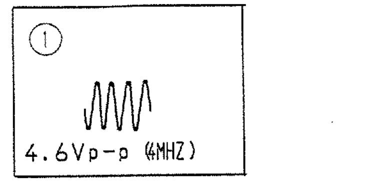


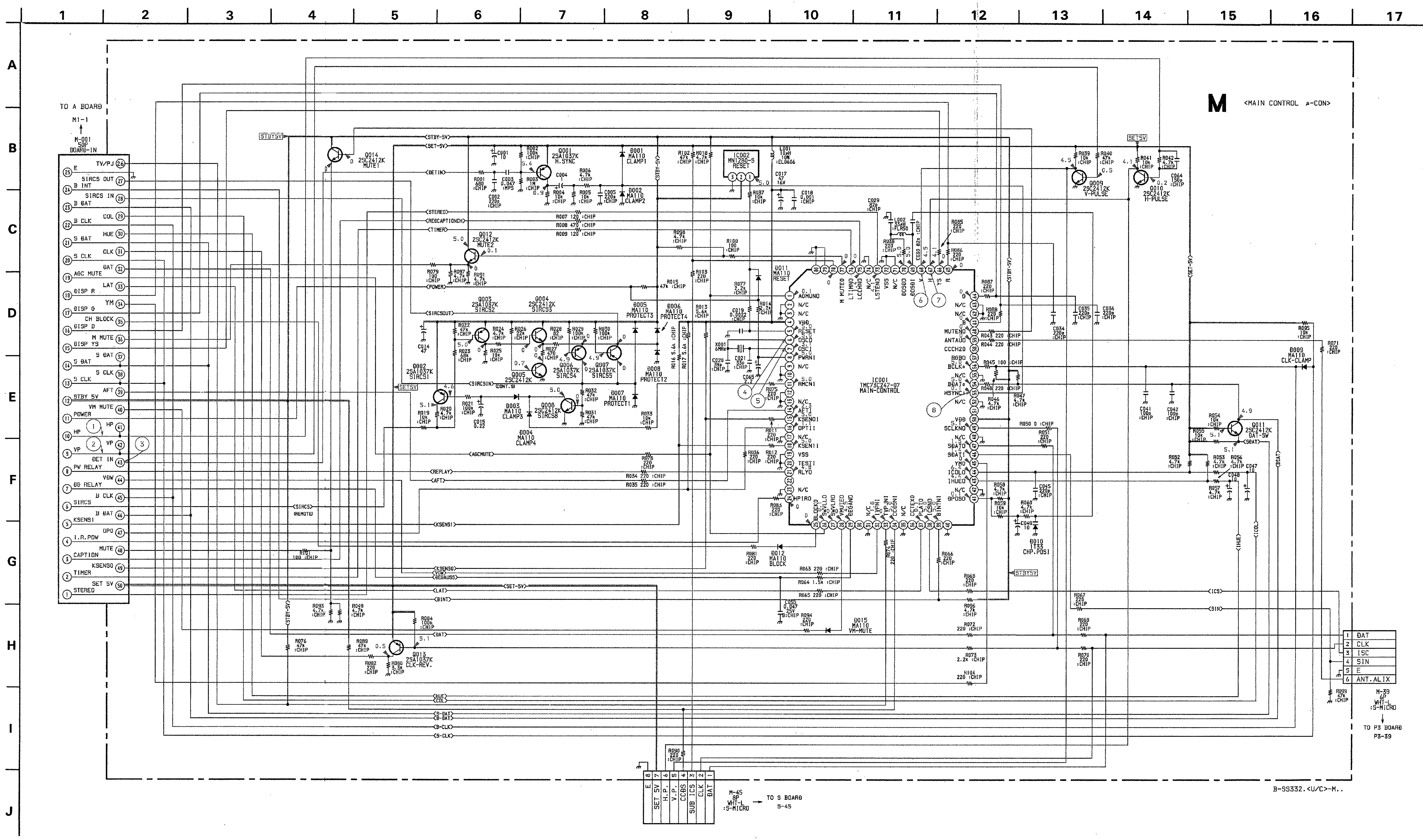

S-45 8P RED :S-MICRO
TO M BOARD M-45
DAT
CLK
SUB ICS
CC DS
V.P.
H.P.
SET 5V
E
S-46 3P YEL :S-MICRO
TO E2 BOARD E2-46
SUB B DAT
SUB B CLK
E
R3476 0 :CHIP
SET5V
IC3402 M37201M6-A18FP SUB-CONTROL µ-CON
N.C.
V.P.
VSS
X OUT
X IN
RESET
X3401
VCC
CS
(NC)
S CLK
S DAT
P DAT
B CLK
R3405 2.2k :CHIP
R3409 220 :CHIP
R3408 4.7k :CHIP
R3407 220 :CHIP
R3406 4.7k :CHIP
R3404 220 :CHIP
C3408 0.01 B:CHIP
C3409 47 16V
L3401 100µH :FLRSD
C3411 33 16V
RESET IC
IC3401 MN1280-S RESET
C3403 0.0022 B:CHIP
R3403 10k :CHIP
R3402 1k :CHIP
R3401 1k :CHIP
S (SUB-CONTROL µ-CON)
B-SS332.<U/C>-S..

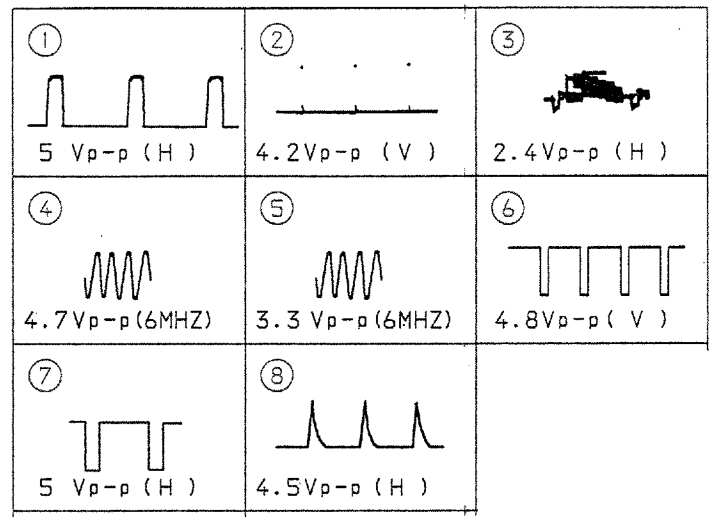
S Board IC3401 MN1280-S


Reference Voltage 1
Level Converting Circuit
Reference Voltage 2
Comparator
Comparator
Output Circuit
②
①
③

— S Board —

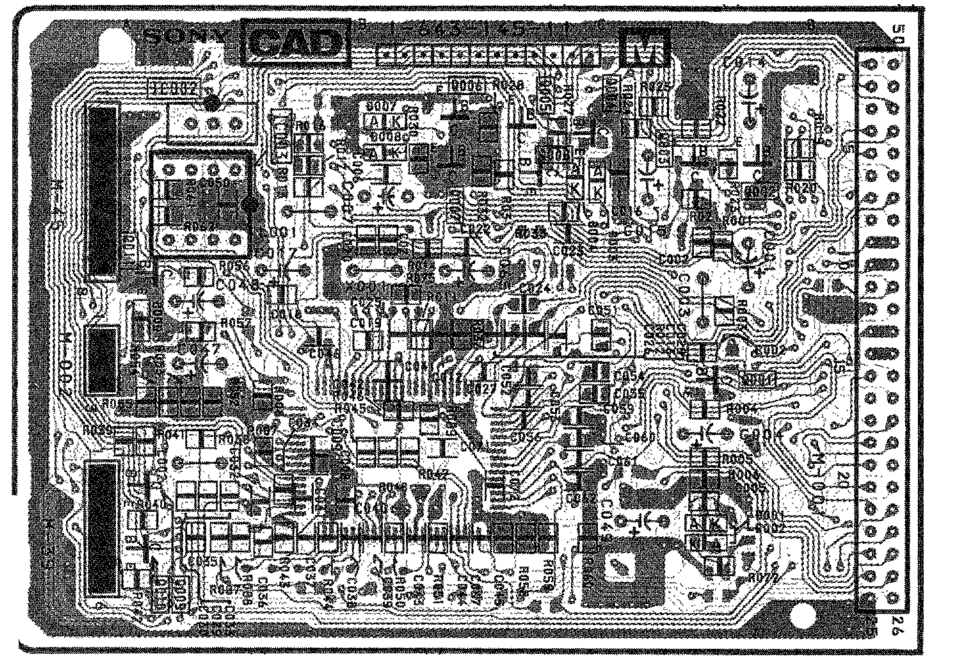


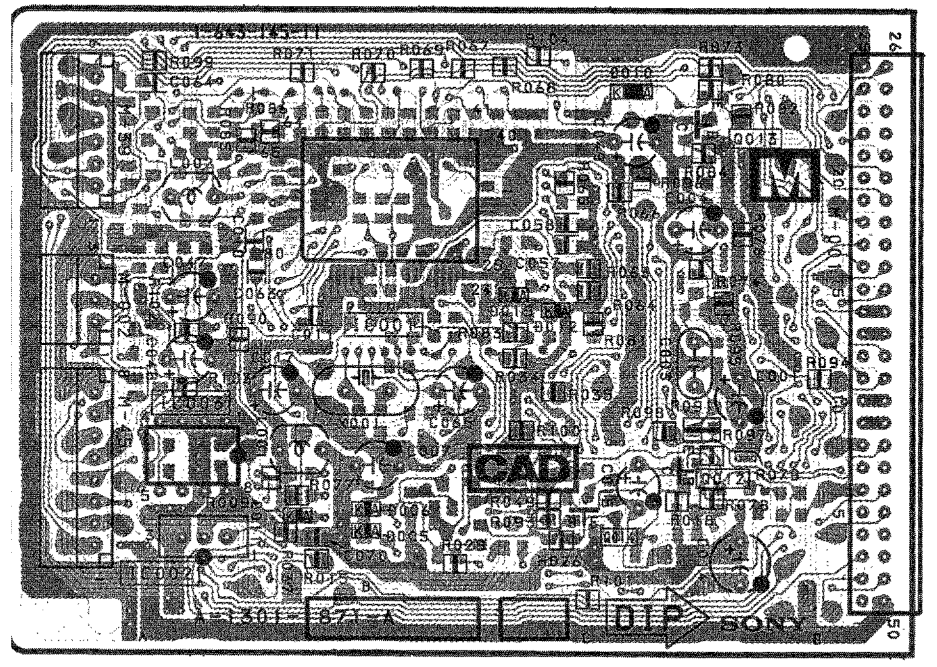

M <MAIN CONTROL µ-CON>
TO A BOARD M1-1
M-001 50P BOARD-IN
IC001 TMC75C247-07 MAIN-CONTROL
IC002 MN1280-S RESET
TO S BOARD S-45
M-45 8P WHT-1 :S-MICRO
M-39 6P WHT-1 :S-MICRO
TO P3 BOARD P3-39
B-SS332.<U/C>-M..



M [MAIN CONTROL, MICRO COMPUTER]

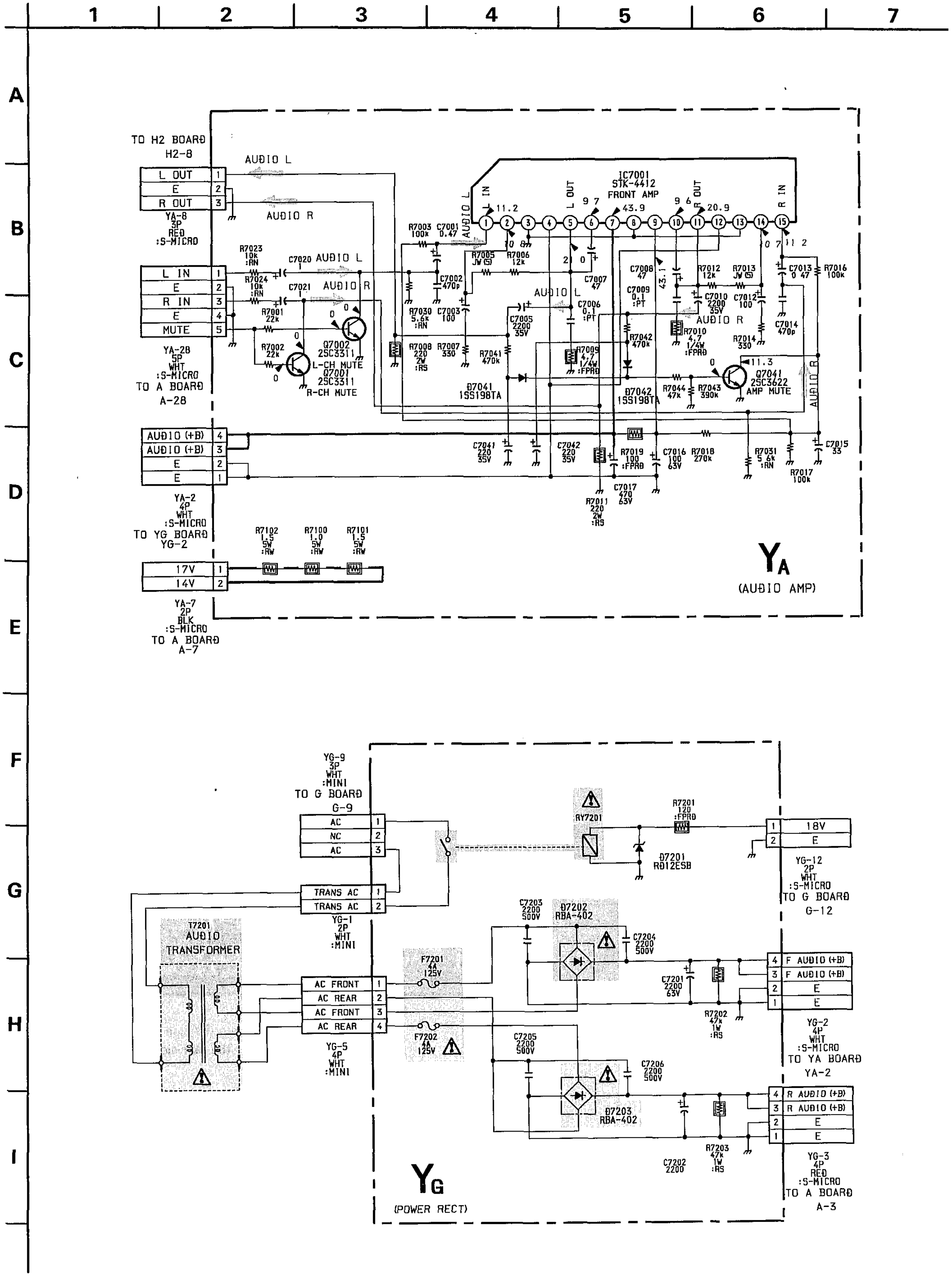
— M Board —



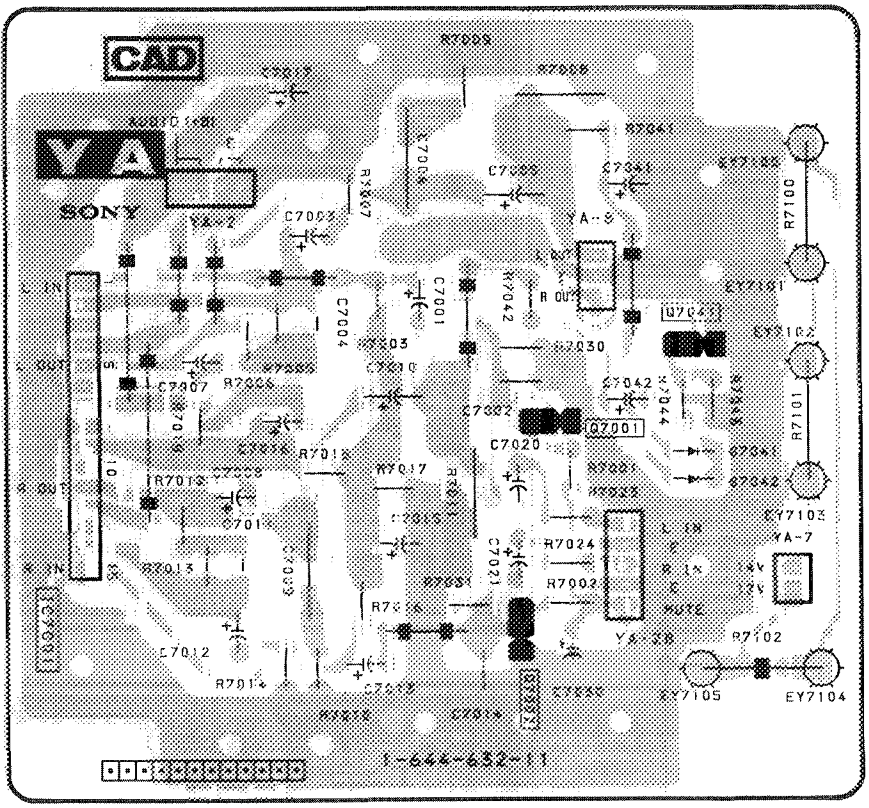


▨ : Pattern from the side which enables seeing

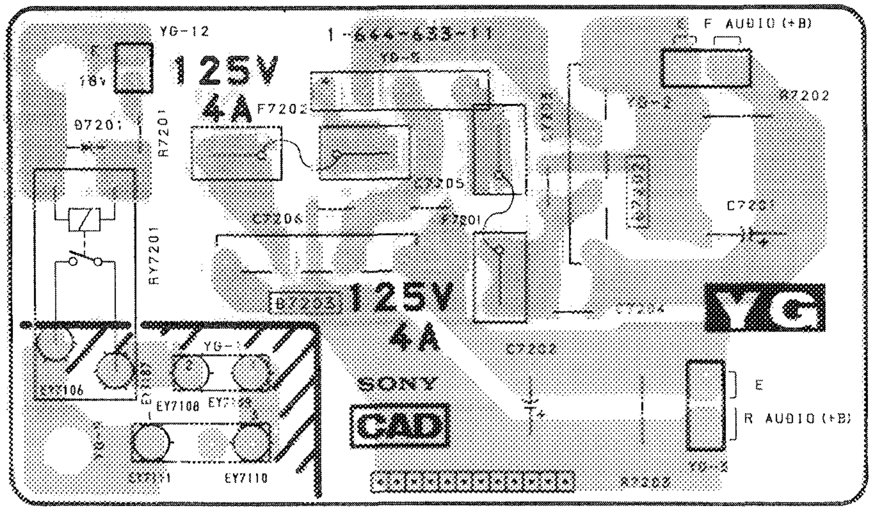
■ : Pattern of the rear side

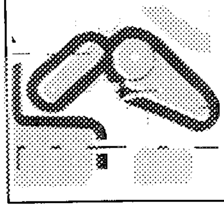

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
TO H2 BOARD
H2-8
L OUT 1
E 2
R OUT 3
YA-8
3P
RED
:S-MICRO
AUDIO L
AUDIO R
R7023
10k
:RN
C7020
1
AUDIO L
R7024
10k
:RN
C7021
1
AUDIO R
L IN 1
E 2
R IN 3
E 4
MUTE 5
R7001
22k
R7002
22k
Q7002
2SC3311
L-CH MUTE
Q7001
2SC3311
R-CH MUTE
YA-28
5P
WHT
:S-MICRO
TO A BOARD
A-28
R7003
100k
C7001
0.47
AUDIO L
IC7001
STK-4412
FRONT AMP
L IN
L OUT
R OUT
R IN
11.2
9 7
43.9
9 6
20.9
10 8
2
0
0 7
11 2
43.1
R7005
JW (5)
R7006
12k
C7002
470p
C7007
47
C7008
47
C7009
0.1
:PT
R7012
12k
R7013
JW (5)
C7013
0 47
R7016
100k
C7010
2200
35V
C7012
100
AUDIO L
C7006
0.1
:PT
C7005
2200
35V
AUDIO R
C7014
470p
R7030
5.6k
:RN
C7003
100
R7008
220
2W
:RS
R7007
330
R7041
470k
R7009
4.7
1/4W
:FPRD
R7042
470k
R7010
4.7
1/4W
:FPRD
R7014
330
D7041
1SS198TA
D7042
1SS198TA
R7044
47k
R7043
390k
0
11.3
Q7041
2SC3622
AMP MUTE
AUDIO R
AUDIO (+B) 4
AUDIO (+B) 3
E 2
E 1
YA-2
4P
WHT
:S-MICRO
TO YG BOARD
YG-2
C7041
220
35V
C7042
220
35V
R7019
100
:FPRD
C7016
100
63V
R7018
270k
R7031
5 6k
:RN
C7015
33
R7017
100k
C7017
470
63V
R7011
220
2W
:RS
R7102
1.5
5W
:RW
R7100
1.0
5W
:RW
R7101
1.5
5W
:RW
17V 1
14V 2
YA-7
2P
BLK
:S-MICRO
TO A BOARD
A-7
YA
(AUDIO AMP)
YG-9
3P
WHT
:MINI
TO G BOARD
G-9
AC 1
NC 2
AC 3
RY7201
R7201
120
:FPRD
D7201
RD12ESB
1 18V
2 E
YG-12
2P
WHT
:S-MICRO
TO G BOARD
G-12
TRANS AC 1
TRANS AC 2
YG-1
2P
WHT
:MINI
T7201
AUDIO
TRANSFORMER
C7203
2200
500V
D7202
RBA-402
C7204
2200
500V
F7201
4A
125V
AC FRONT 1
AC REAR 2
AC FRONT 3
AC REAR 4
YG-5
4P
WHT
:MINI
F7202
4A
125V
C7201
2200
63V
R7202
47k
1W
:RS
4 F AUDIO (+B)
3 F AUDIO (+B)
2 E
1 E
YG-2
4P
WHT
:S-MICRO
TO YA BOARD
YA-2
C7205
2200
500V
C7206
2200
500V
D7203
RBA-402
4 R AUDIO (+B)
3 R AUDIO (+B)
2 E
1 E
R7203
47k
1W
:RS
C7202
2200
YG-3
4P
RED
:S-MICRO
TO A BOARD
A-3
YG
(POWER RECT)

— YA Board —


CAD
YA
SONY
YA-2
C7003
R7007
C7004
C7001
R7042
R OUT
YA-8
R7100
EY7101
EY7102
Q7043
R7030
C7042
R7044
C7020
Q7001
R7101
R7018
R7017
R7013
C7007
R7006
C7011
C7009
C7021
R7024
R7002
YA-7
EY7103
YA-3B
R7102
EY7105
EY7104
C7012
R7014
L IN
L OUT
R OUT
R IN
10
1-644-632-11

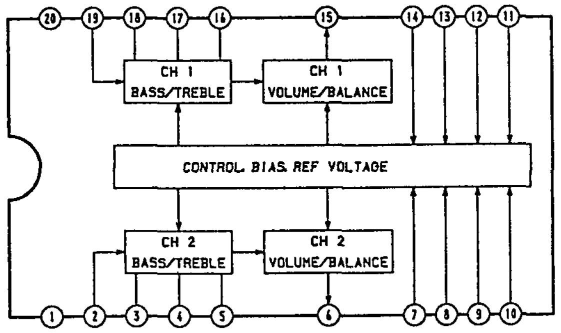
— YG Board —


YG-12
18V
125V
4A
F7202
D7201
R7201
RY7201
1-644-633-11
C7205
C7206
F7201
B7203
125V
4A
E
F AUDIO (+B)
R7202
C7201
YG
C7202
E
R AUDIO (+B)
SONY
CAD
YG-1
EY7106
EY7108
EY7110

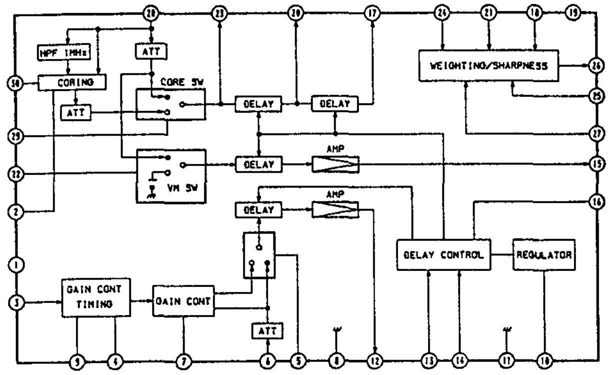


NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

Y2 Board IC407 TA8184P

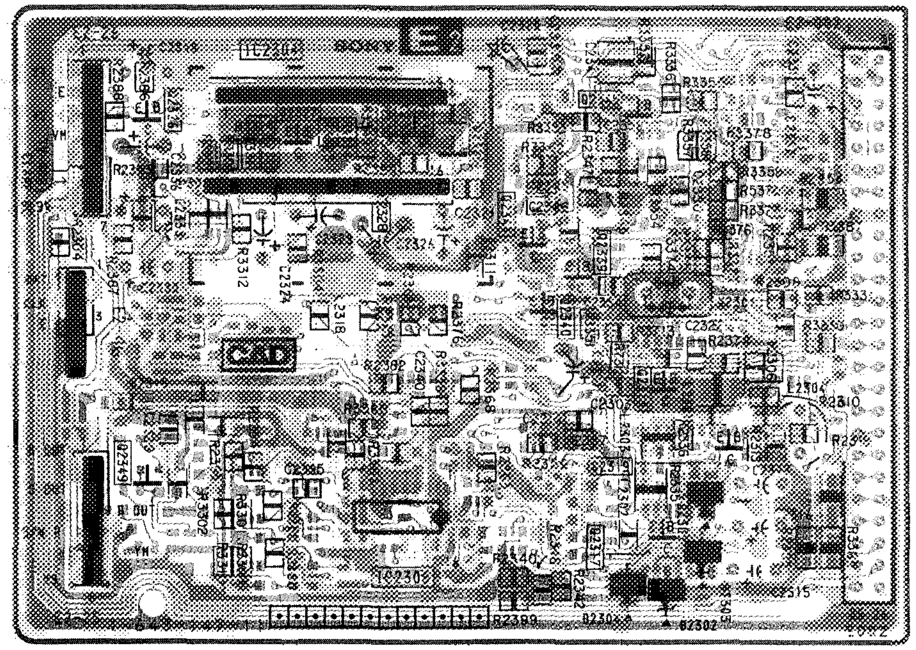

20
19
18
17
16
15
14
13
12
11
CH 1
BASS/TREBLE
CH 1
VOLUME/BALANCE
CONTROL, BIAS, REF VOLTAGE
CH 2
BASS/TREBLE
CH 2
VOLUME/BALANCE
1
2
3
4
5
6
7
8
9
10

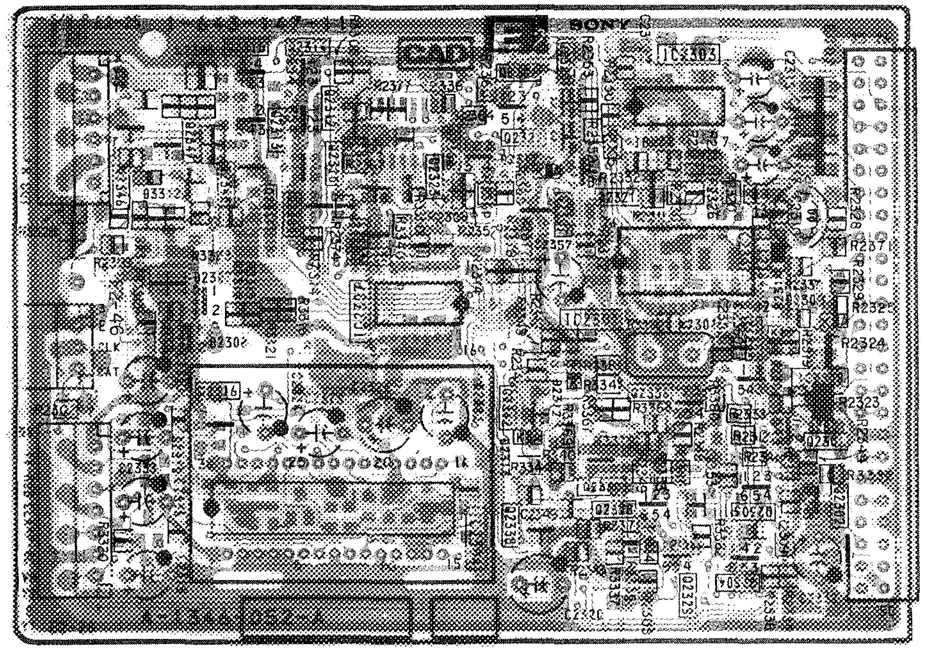
E2 Board IC2304 CXA1387S


28
23
20
17
24
21
18
19
HPF 1MHz
ATT
CORING
ATT
CORE SW
DELAY
DELAY
WEIGHTING/SHARPNESS
30
26
25
29
27
DELAY
AMP
15
22
VM SW
DELAY
AMP
16
2
1
DELAY CONTROL
REGULATOR
3
GAIN CONT
TIMING
GAIN CONT
ATT
9
4
7
6
5
8
12
13
14
11
10

E2 [SHARPNESS CONT., CHARACTOR GENERATER]

— E2 Board —



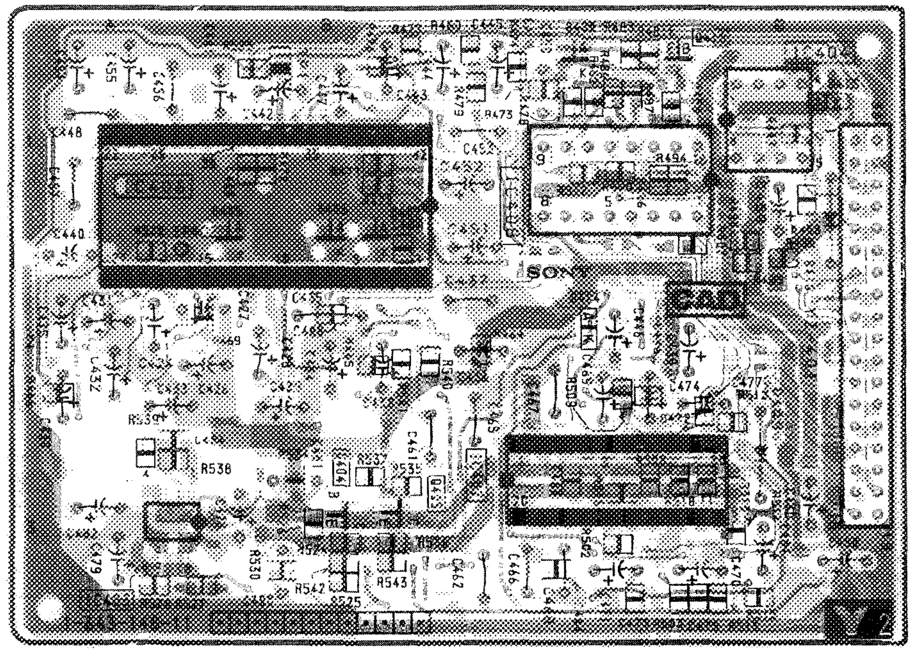


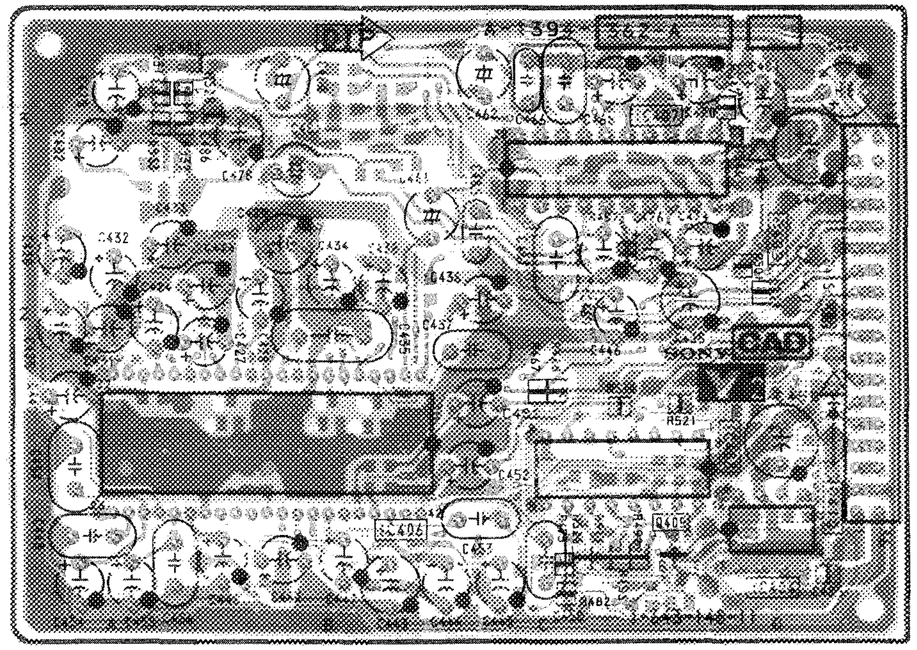
▒ : Pattern from the side which enables seeing

▓ : Pattern of the rear side

Y2 [MTS DECORDER, NVM, AUDIO CONT]

— Y2 Board —



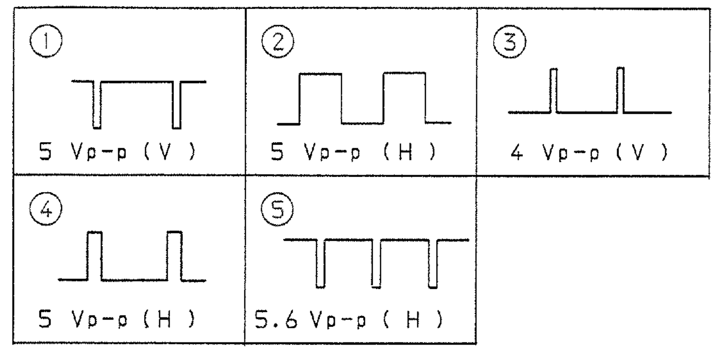


▒ : Pattern from the side which enables seeing

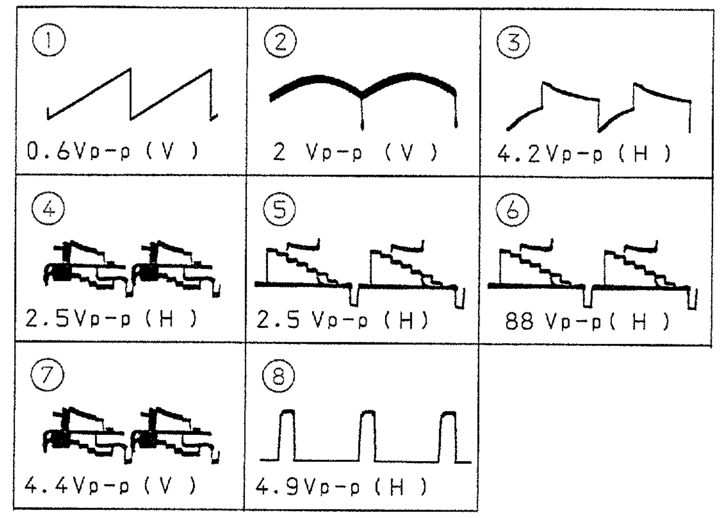
▓ : Pattern of the rear side

Y2
MTS DECODER
NVM
AUDIO CONT.
IC406 CXA1264AS MTS-DECODE
IC403 RC4558PS-T1 AMPLIFIER
IC404 24C04A1 ROM
IC407 TA8184P VOL-CONT.
BASS TREBLE BOOST
IC408 CXA1315P D/A CONTROL
Q404 2SA1037K BUFFER
Q405 2SA1037K BUFFER
Q409 2SC2412K BUFFER
Q410 2SC2412K BUFFER
AUDIO L
AUDIO R
MPX
TO A BOARD AS001
Y2-401 36P :BOARD-IN
STBY 5V
12V
MPX
9V
B CLK
B DAT
SURO
TV-R OUT
TV-L OUT
SUR 1
VAR-R OUT
VAR-L OUT
E
R-EXT
L-EXT
SP MUTE
SP-R OUT
SP-L OUT
TP-1
R-VOL
B-SS332.<U/C>-Y2.
– E2 Board –
① 2.4Vp-p (H)
② 2.4Vp-p (H)
③ 4.2Vp-p (V)
④ 5 Vp-p (H)
⑤ 3.7 Vp-p (H)
⑥ 3.2Vp-p (H)
⑦ 2.9Vp-p (H)
⑧ 2.9Vp-p (H)
⑨ 2.6 Vp-p (H)
⑩ 4.4Vp-p (4MHZ)
⑪ 5.5Vp-p (4MHZ)
E2
SHARPNESS CONT.
CHARACTOR GENERATER
IC2301 PCA8516P/V3-T CHR-GEN
IC2303 SN74HC00ANS BRT-GEN
IC2306 MC74HC4053F RGB-SW
IC2307 CXA1315M DUS-D/A
TO E1 BOARD E1-25
TO E1 BOARD E1-26
TO S BOARD S-46
SUB DAT
SUB CLK
E
E2-002 50P BOARD-IN
TO A BOARD E2-1
9V
5V
B-Y
R-Y
MAIN V
YS
DISP YS
DISP B
DISP G
DISP R
VP
HP
SCLK
SDAT
RGB SW
EXT B
EXT G
EXT R
YM
ABL
SUB CLK
SUB DAT
B-INT
TEXT R
MPX
B-SS332.<U/C>-E2.

— P2 Board —


①
5 Vp-p (V)
②
5 Vp-p (H)
③
4 Vp-p (V)
④
5 Vp-p (H)
⑤
5.6 Vp-p (H)

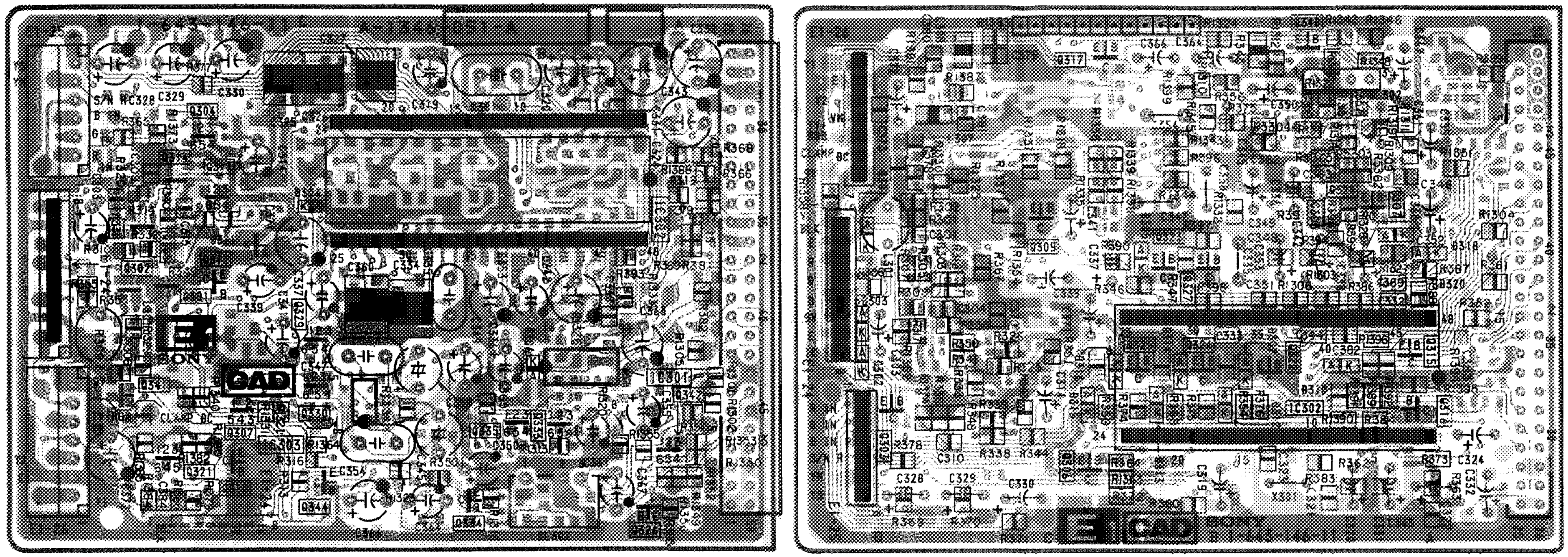
— E1 Board —


①
0.6Vp-p (V)
②
2 Vp-p (V)
③
4.2Vp-p (H)
④
2.5Vp-p (H)
⑤
2.5 Vp-p (H)
⑥
88 Vp-p (H)
⑦
4.4Vp-p (V)
⑧
4.9Vp-p (H)

TO A BOARD
P2-1
P2
<MPX PICTURE IN PICTURE CIRCUIT>
B-SS332 <U/C>-P2
IC5005
CXD1220AQ
MPX.CONT
TO A BOARD
A-24
TO E2 BOARD
E2-25
TO E2 BOARD
E2-26
IC502
CXA1064AS
Y/C-JUNGLE
E1-001
50P
BOARD-IN
TO A BOARD
E1-1
E1
<Y/C JUNGLE>
B-SS332 <U/C>-E1

E1 [Y/C JUNGLE] **P2** [MPX PICTURE IN PICTURE CIRCUIT]

— E1 Board —



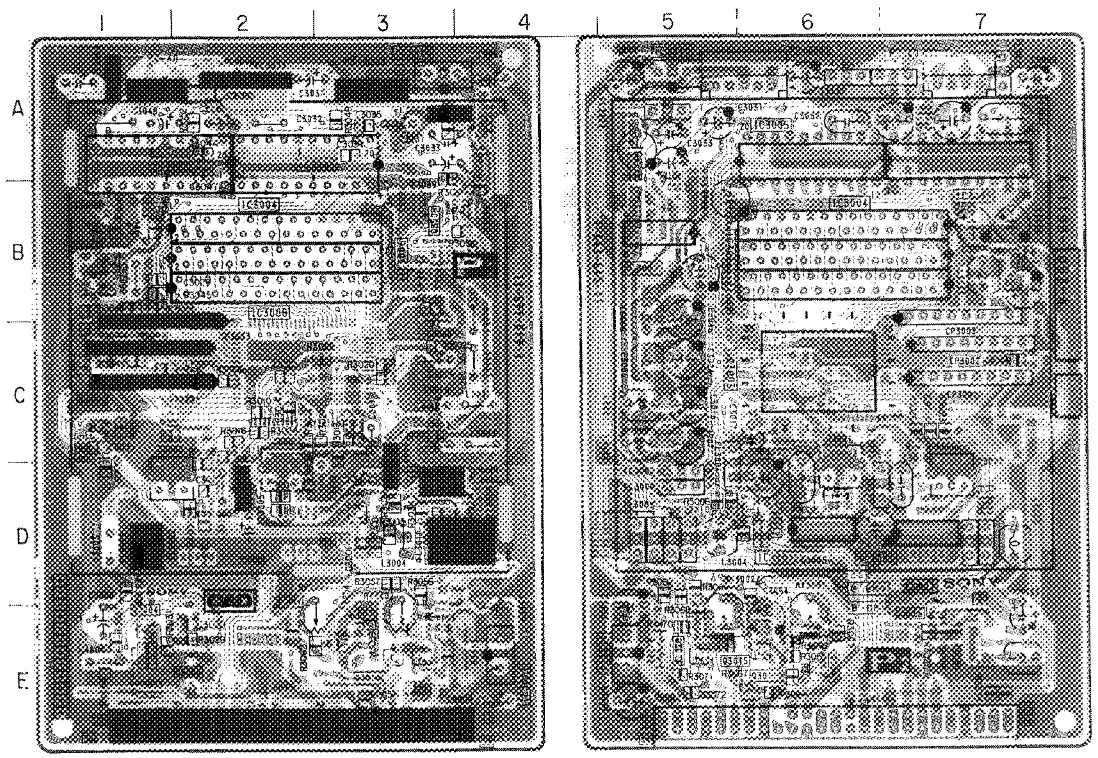
░ : Pattern from the side which enables seeing
▒ : Pattern of the rear side

— P2 Board —

IC	
IC3001	D-6
IC3002	D-6
IC3003	C-6
IC3004	B-2
IC3005	A-2
IC3006	B-3
IC3007	B-5
IC3008	B-2
IC3009	A-1
IC3010	A-5
IC3011	E-4

TRANSISTOR	
Q3001	D-3
Q3002	D-6
Q3003	E-2
Q3004	E-1
Q3005	C-1
Q3006	E-7
Q3007	C-1
Q3008	B-1
Q3009	B-3
Q3010	E-3
Q3011	E-6
Q3012	E-6
Q3013	E-3
Q3014	E-5
Q3015	E-6

— P2 Board —

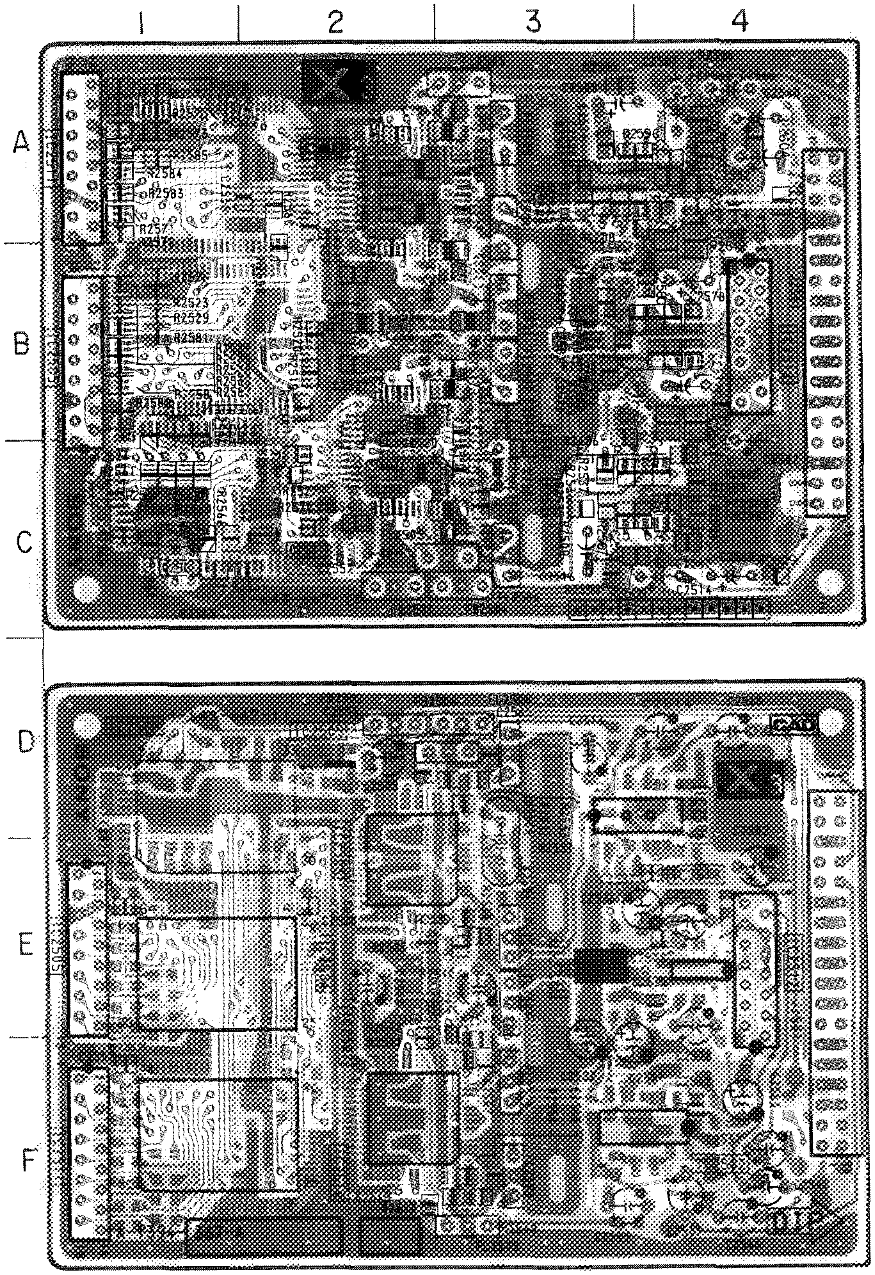


░ : Pattern from the side which enables seeing
▒ : Pattern of the rear side

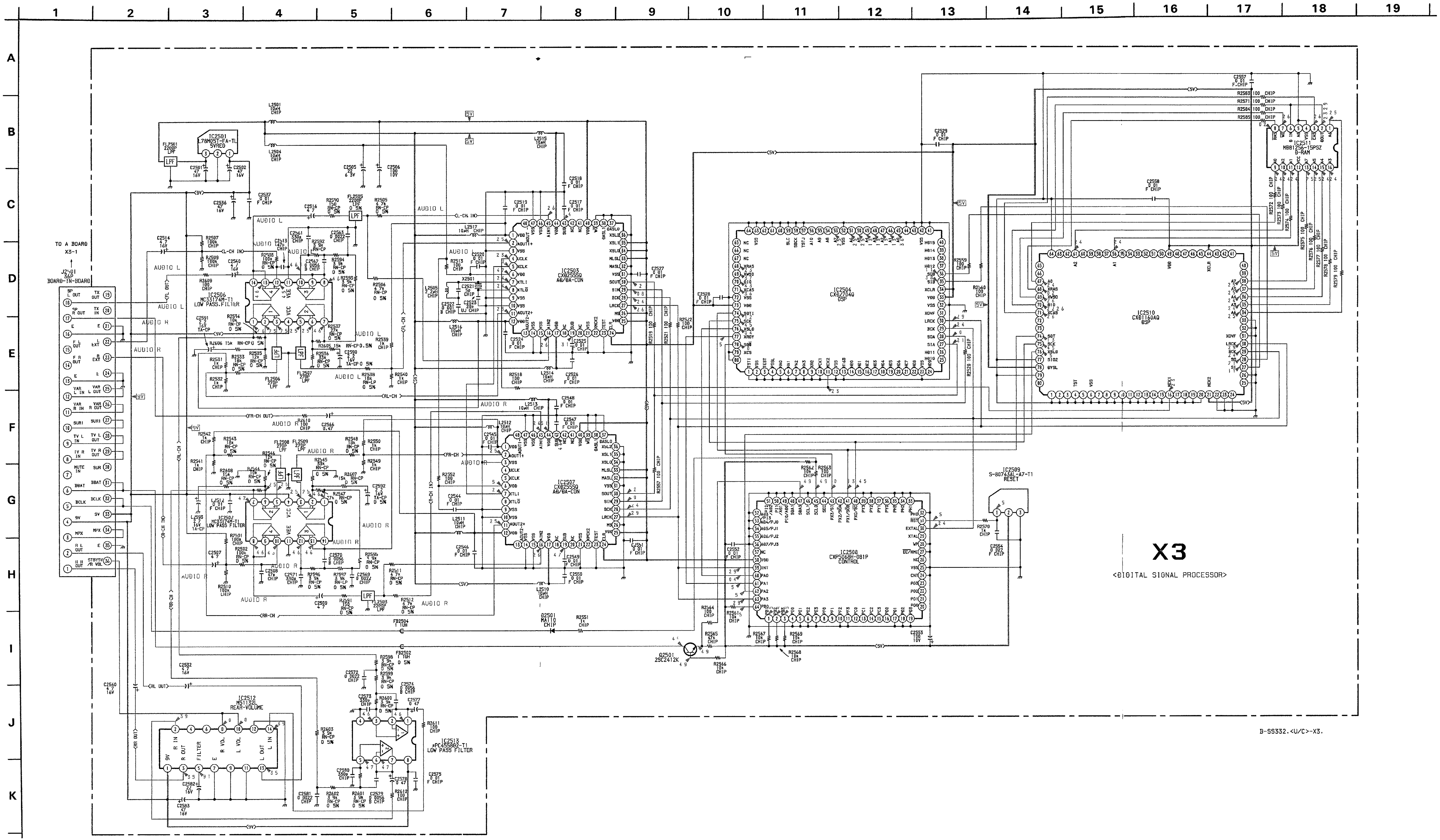
X3 [DIGITAL SIGNAL PROCESSOR]

— X3 Board —

IC	
IC2501	E 3
IC2502	F 3
IC2503	E 2
IC2504	E 1
IC2506	D-3
IC2507	F 2
IC2508	D 1
IC2509	D 2
IC2510	F 1
IC2511	A 1
IC2512	E-4
IC2513	E 4
TRANSISTOR	
Q2501	C 1
DIODE	
D2501	C 2


1
2
3
4
A
B
C
D
E
F
X3
R2584
R2583
R2523
R2529
R2581
C2514

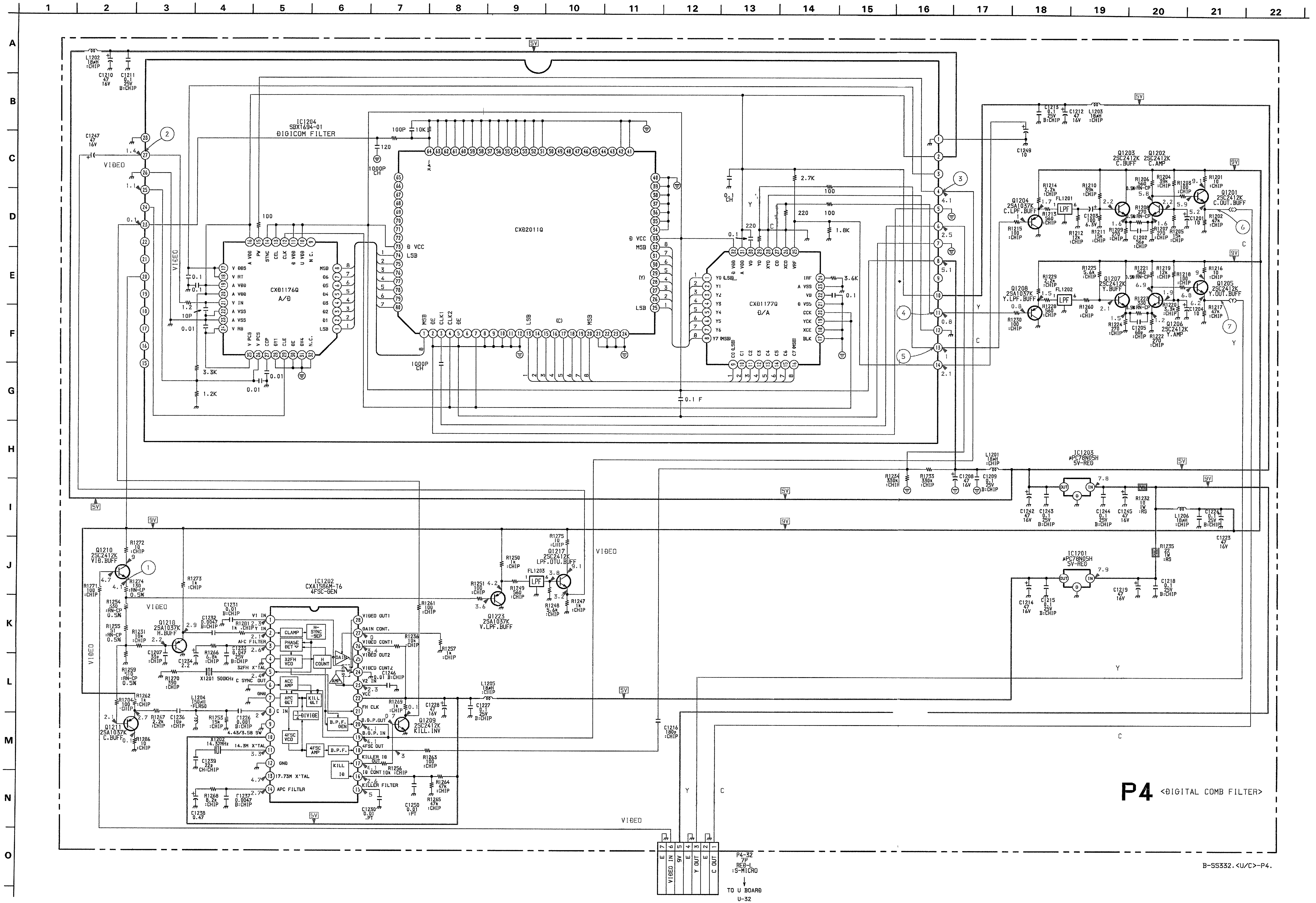
▨ : Pattern from the side which enables seeing
▨ : Pattern of the rear side


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
A
B
C
D
E
F
G
H
I
J
K
TO A BOARD
X3-1
J2501
36P
BOARD-IN-BOARD
IC2501
L78M05T-FA-TL
5VREG
IC2506
MC33174M-T1
LOW PASS FILTER
IC2503
CXD2555Q
AD/DA-CON
IC2504
CXD2704Q
DSP
IC2510
CXD1160AQ
DSP
IC2511
MB81256-15PSZ
D-RAM
IC2507
CXD2555Q
AD/DA-CON
IC2502
MC33174M-T1
LOW PASS FILTER
IC2508
CXP5068H-081P
CONTROL
IC2509
S-80743AL-A7-T1
RESET
IC2512
M51132L
REAR-VOLUME
IC2513
μPC4558G2-T1
LOW PASS FILTER
Q2501
2SC2412K
D2501
MA110
AUDIO L
AUDIO R
L-CH IN
FR-CH OUT
RL-CH
RR-CH
FL OUT
RL OUT
RR OUT
5V
9V
LPF

X3

<DIGITAL SIGNAL PROCESSOR>

B-SS332.<U/C>-X3.


IC1204
SBX1694-01
DIGICOM FILTER
CXD1176Q
A/D
CXD2011Q
CXD1177Q
D/A
IC1202
CXA1586M-T6
4FSC-GEN
IC1203
μPC78N05H
5V-REG
IC1201
μPC78N05H
5V-REG
Q1210
2SC2412K
VID.BUFF
Q1211
2SA1037K
C.BUFF
Q1212
2SA1037K
H.BUFF
Q1209
2SC2412K
KILL.INV
Q1223
2SA1037K
V.LPF.BUFF
Q1217
2SC2412K
LPF.OTU.BUFF
Q1204
2SA1037K
C.LPF.BUFF
Q1203
2SC2412K
C.BUFF
Q1202
2SC2412K
C.AMP
Q1201
2SC2412K
C.OUT.BUFF
Q1208
2SA1037K
Y.LPF.BUFF
Q1207
2SC2412K
Y.BUFF
Q1206
2SC2412K
Y.AMP
Q1205
2SC2412K
Y.OUT.BUFF
FL1201
FL1202
FL1203
LPF
X1201 500KHz
X1202
14.32MHz
VIDEO
Y
C
5V
9V
P4-32
7P
REB-L
:S-MICRO
TO U BOARD
U-32
VIDEO IN
9V
Y OUT
C OUT
E

P4 <DIGITAL COMB FILTER>

B-SS332.<U/C>-P4.

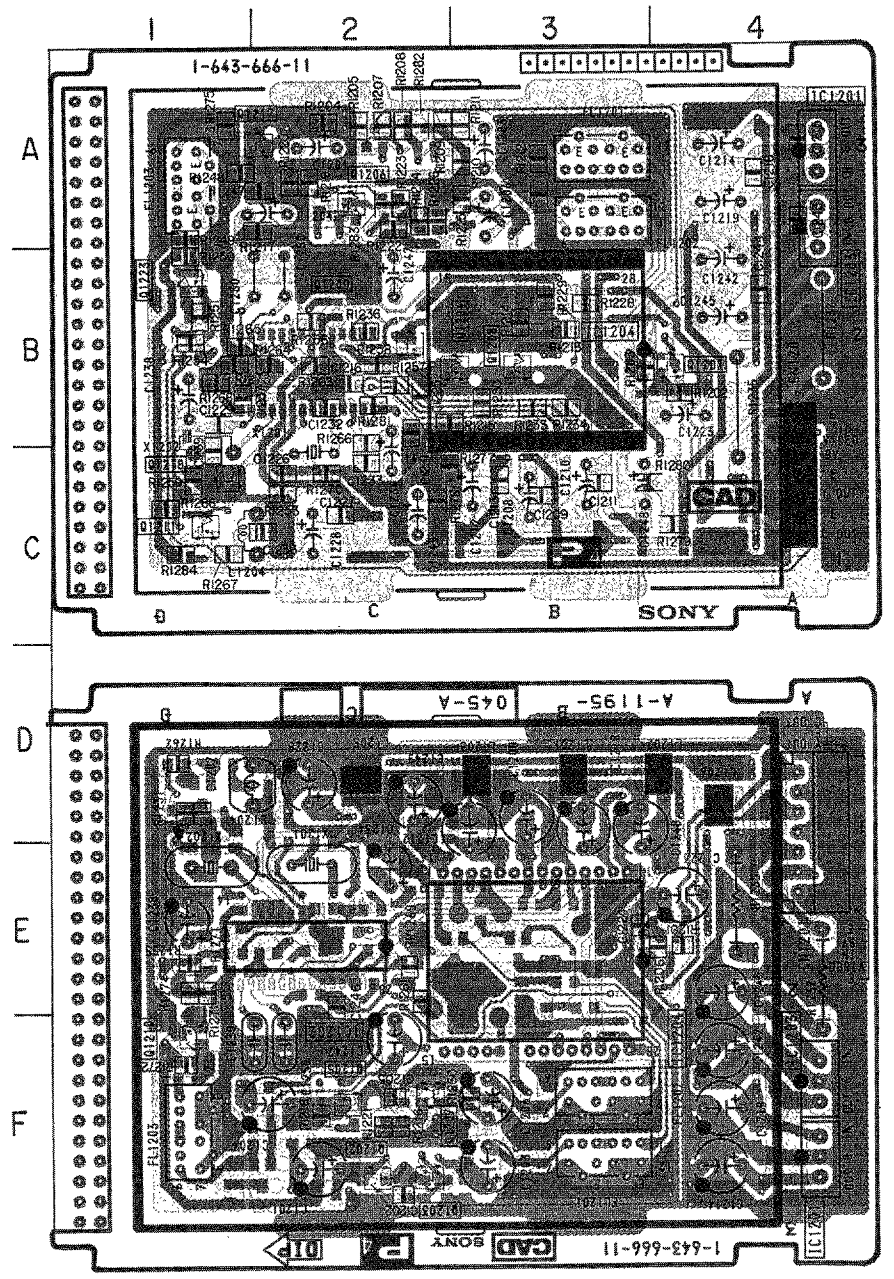
P4 [DIGITAL COMB FILTER]

— P4 Board —

IC	
IC1201	F-4
IC1202	E-2
IC1203	F-4
IC1204	B-3

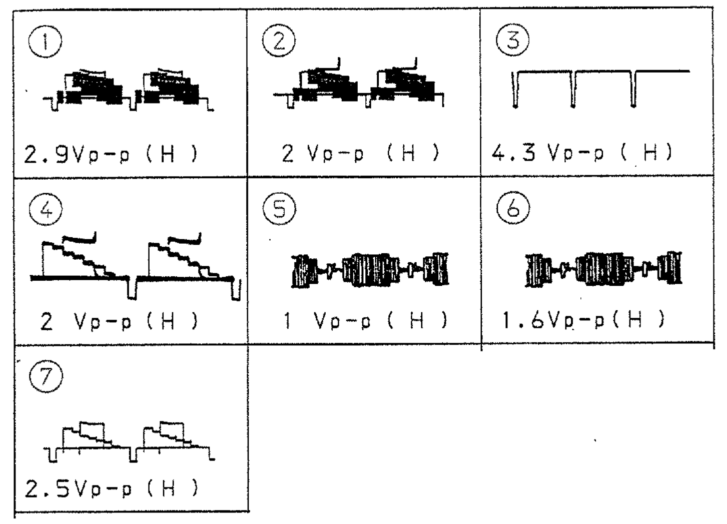
TRANSISTOR	
Q1201	B-4
Q1202	F-2
Q1203	F-2
Q1204	B-3
Q1205	F-2
Q1206	A-2
Q1207	F-2
Q1208	B-3
Q1209	B-2
Q1210	F-1
Q1211	C-1
Q1217	A-2
Q1218	C-1
Q1223	B-1

— P4 Board —

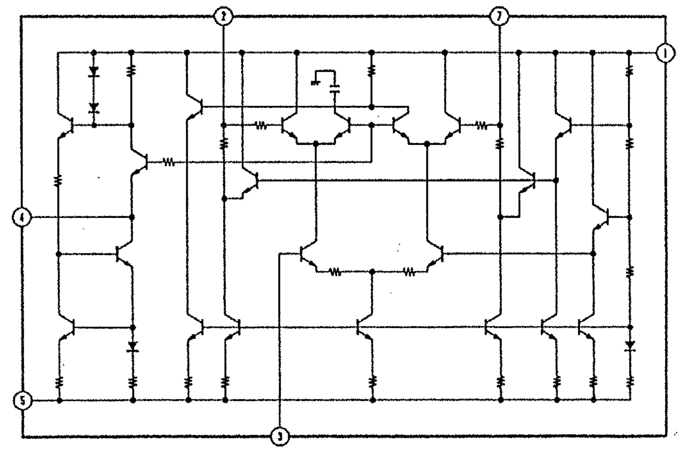

1
2
3
4
A
B
C
D
E
F
1-643-666-11
SONY
CAD
DIP
A-1195-
045-A

- ▨: Pattern from the side which enables seeing
- ▩: Pattern of the rear side

— P4 Board —



P3 Board IC2006 CX20061



P3

2SD CONT, µ-CON FOR PIP, ANT SW CONT
2ND TUNER-VIF/SIF FOR PIP, Y/C JUNGLE FOR PIP

— P3 Board —

IC	
IC2001	F-1
IC2002	C-2
IC2003	D-3
IC2004	B-3
IC2005	C-3
IC2006	F-4
IC2007	E-4

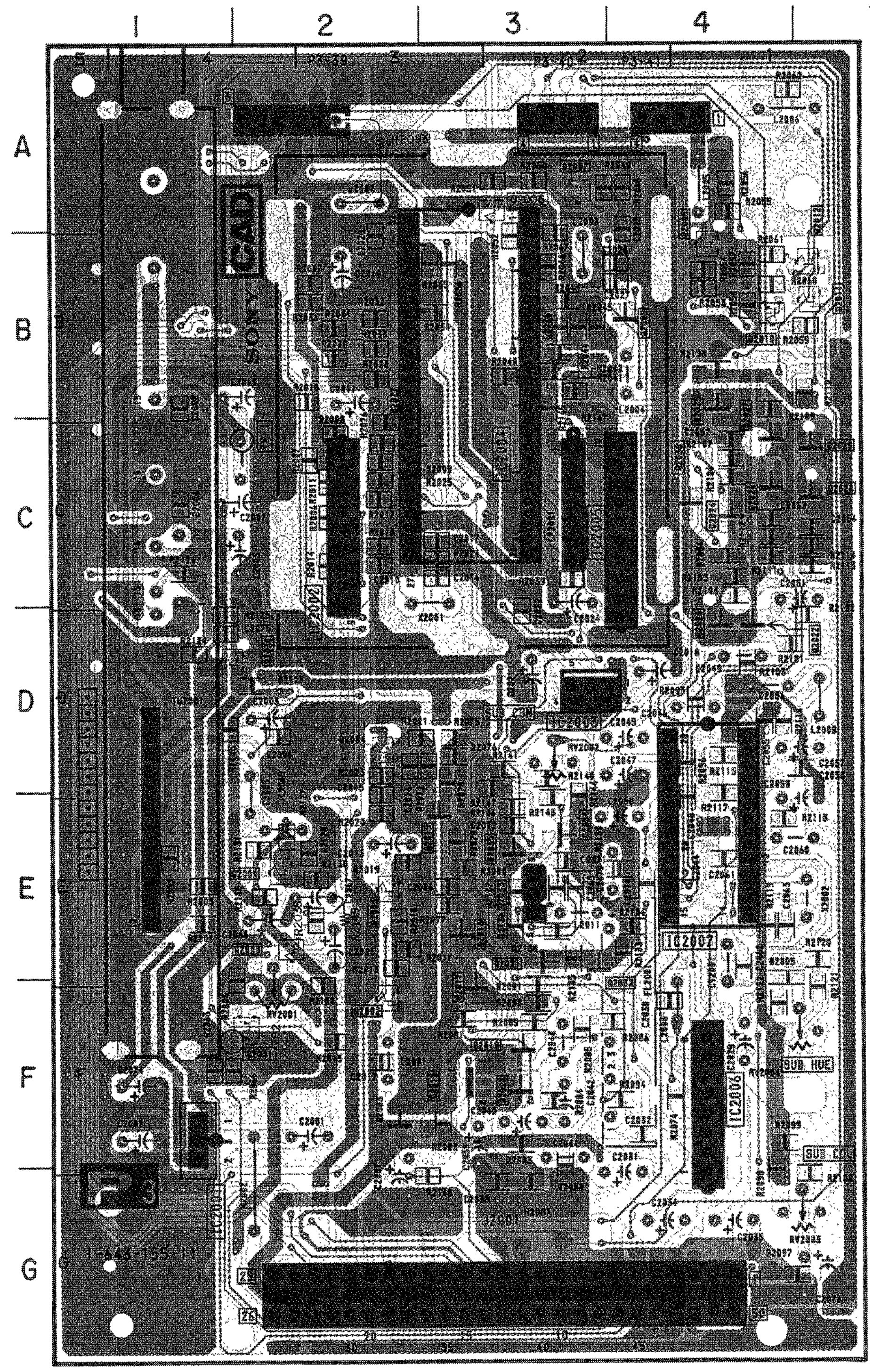
TRANSISTOR	
Q2001	E-2
Q2002	F-2
Q2003	E-2
Q2004	D-2
Q2005	B-4
Q2006	A-3
Q2007	A-3
Q2008	E-2
Q2009	B-4
Q2010	B-4
Q2011	B-4
Q2012	B-4
Q2015	E-3
Q2016	E-3
Q2017	F-3
Q2018	F-3
Q2019	F-3
Q2020	F-3
Q2021	E-3
Q2022	D-4
Q2023	D-4
Q2024	C-4
Q2025	B-4
Q2026	C-4
Q2027	B-4
Q2028	C-4
Q2029	C-4
Q2030	D-2
Q2031	F-2
Q2032	E-3
Q2034	E-3
Q2036	C-4

DIODE	
D2003	F-2
D2004	C-4
D2005	E-4

VARIABLE RESISTOR	
RV2001	F-2
RV2002	D-3
RV2003	G-4
RV2004	F-4

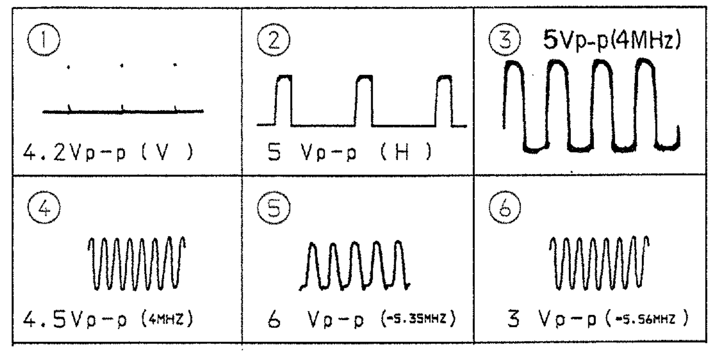
TRYMMER	
CV201	E-4

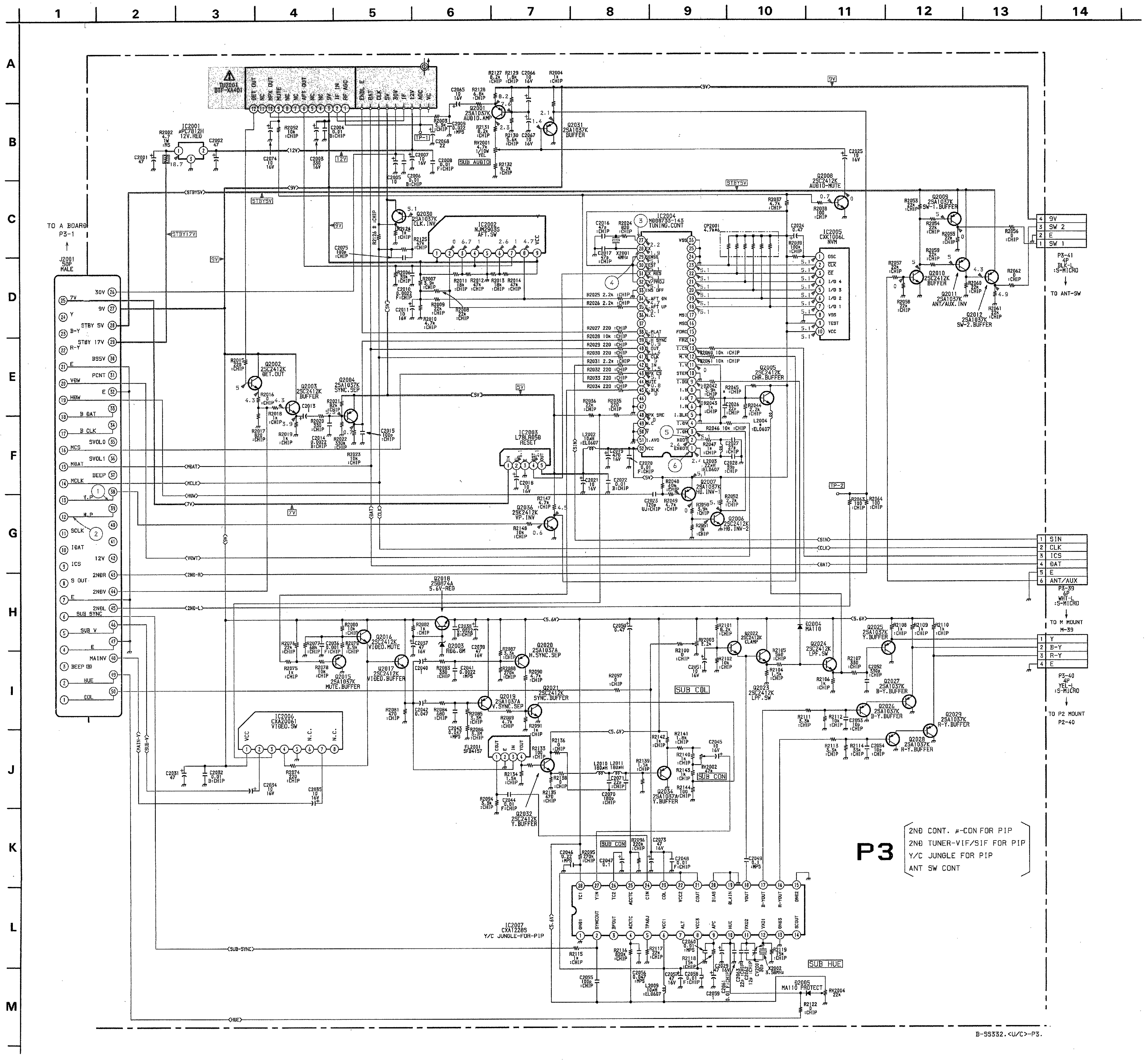
— P3 Board —


1
2
3
4
A
B
C
D
E
F
G
CAD
SONY

- ▨: Pattern from the side which enables seeing
- ▩: Pattern of the rear side

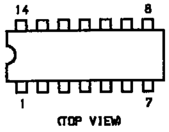
— P3 Board —



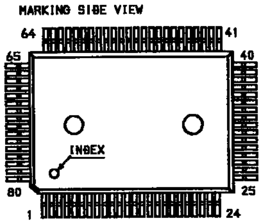

1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
K
L
M
TO A BOARD
P3-1
J2001
50P
MALE
30V
7V
9V
Y
STBY 5V
B-Y
STBY 17V
R-Y
BS5V
E
PCNT
VDW
HDW
B DAT
B CLK
SVOL0
MCS
SVOL1
MDAT
BEEP
MCLK
V.P
H.P
SCLK
IDAT
12V
ICS
2NDR
S OUT
2NDV
2NDL
SUB SYNC
SUB V
MAINV
BEEP (B)
HUE
COL
IC2001
IC2002
IC2003
IC2004
IC2005
IC2006
CXA2006
VIDEO SW
IC2007
CXA1228S
Y/C JUNGLE-FOR-PIP
SUB CBL
SUB CON
SUB HUE
9V
SW 2
E
SW 1
P3-41
4P
BLK-L
:S-MICRO
TO ANT-SW
SIN
CLK
ICS
DAT
E
ANT/AUX
P3-39
6P
WHT-L
:S-MICRO
TO M MOUNT
M-39
Y
B-Y
R-Y
E
P3-40
4P
YEL-L
:S-MICRO
TO P2 MOUNT
P2-40
P3
2ND CONT. µ-CON FOR PIP
2ND TUNER-VIF/SIF FOR PIP
Y/C JUNGLE FOR PIP
ANT SW CONT
B-55332.<U/C>-P3.

6-7. SEMICONDUCTORS

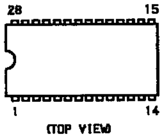
CA0007AD
LM324N
μPC1394C


14
8
1
7
(TOP VIEW)

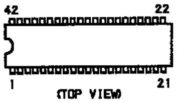
CXD1160AQ
CXD1220AQ
CXD2023Q
CXD2704Q
TMC73C247-10


MARKING SIDE VIEW
64
41
65
40
INDEX
80
25
1
24

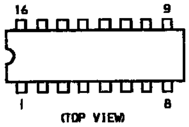
CXA1228S
CXA1268P


28
15
1
14
(TOP VIEW)

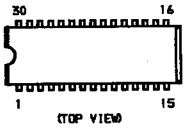
CXA1264AS
PA0036


42
22
1
21
(TOP VIEW)

CXA1315M
CXA1315P
MC141053CP
μPD4053BC


16
9
1
8
(TOP VIEW)

CXA1387S


30
16
1
15
(TOP VIEW)

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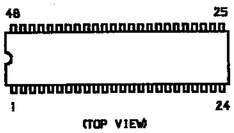
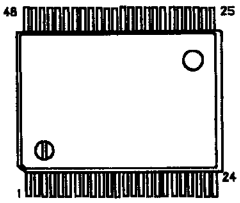
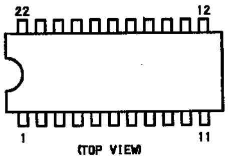

48
25
1
24
(TOP VIEW)

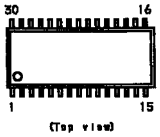
CXA1545S



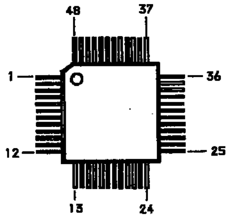
CXA1656S
LA7945


22
12
1
11
(TOP VIEW)

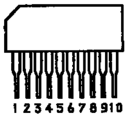
CXA1686M


30
16
1
15
(Top view)

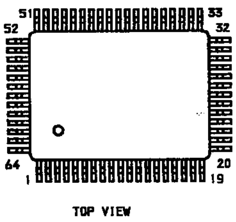
CXD255Q


48
37
1
36
12
25
13
24

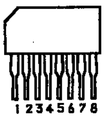
CXK1006L


1 2 3 4 5 6 7 8 9 10

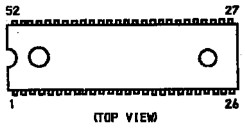
CXP5068H-205Q


51
33
52
32
64
20
1
19
TOP VIEW

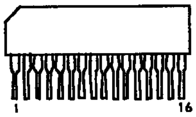
CX20061
M5220L



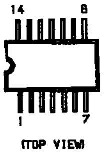
LC7458B-03


52
27
1
26
(TOP VIEW)

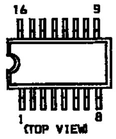
MB81256-12



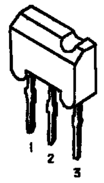
MC33174M
MC74HC04AF
SN74HC05ANS


14
8
1
7
(TOP VIEW)

MC74HC4053F


16
9
1
8
(TOP VIEW)

MN1280-S



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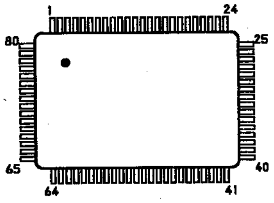
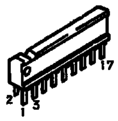

1
24
80
25
65
40
64
41

M5M4C500L-10



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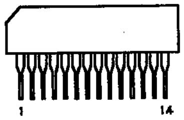

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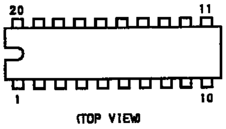
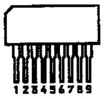
TA8184P


20
11
1
10
(TOP VIEW)

NJM2903S



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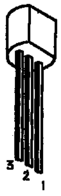

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μPC2415HF
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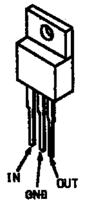

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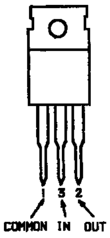
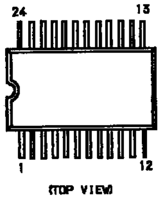
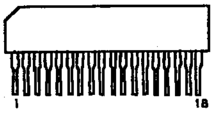
NJM7915FA


1
3
2
COMMON
IN
OUT

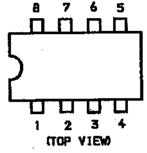
PCA8510T/012-T


24
13
1
12
(TOP VIEW)

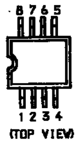
RBA-402



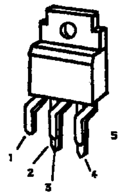
RC4558P
TL082CP
µPC393C
µPC4557C
24C04AI/P


8 7 6 5
1 2 3 4
(TOP VIEW)

RC4558PS
µPC4558G2


8765
1234
(TOP VIEW)

SI-3090CA



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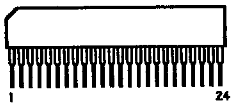
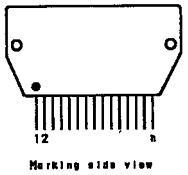
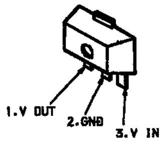


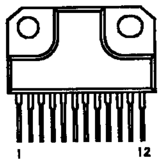
STK4412


12
1
Marking side view

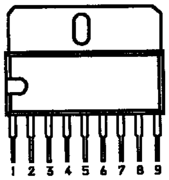
S-80743AL-A7-S


1.V OUT
2.GND
3.V IN

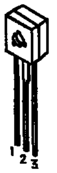
TA8200AH
TA8216H



µPC1498H



µPC78N05H



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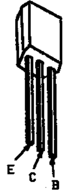
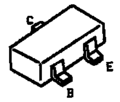
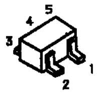
DTC144ES
2SC3622A-LK



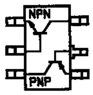
DTC144EK
2SA1162-G
2SC1623-L5L6
2SC2412K-QR



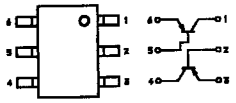
FMW1



IMX3
IMZ1



XN4401



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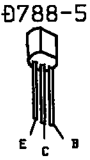
2SC2551-0
2SD788-5



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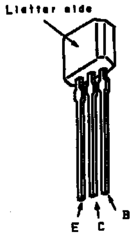
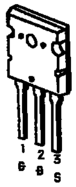

Letter side
E
C
B

2SA1301-0



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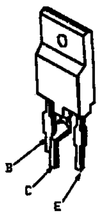
2SC4891-CA
2SD1887-CA



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2SC2611
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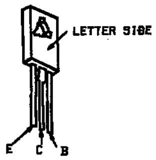
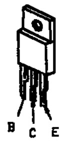

LETTER SIDE
E
C
B

2SB861-C
2SB1094-LK
2SD1406-YGR



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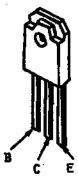

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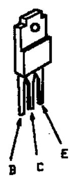

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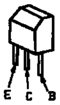

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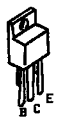
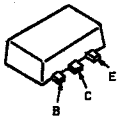


2SD874A-R



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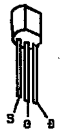

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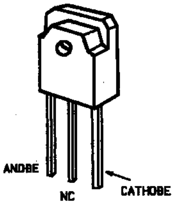
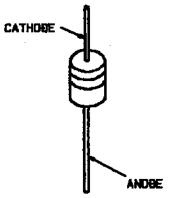

ANODE
NC
CATHODE

D1NS4
EGP10D
RB-100A
RD13ES-B2
RD18ES-B2
RD2.0ES-B1
RD24ES-B3
RD3.3ES-B2
RD3.9ES-B1
RD33ES-B2
RD39ES-B2
RD4.7ES-B2
RD5.1ES-B1
RD5.1ES-B2
RD5.6ES-B2
RD7.5ES-B1
RD9.1ES-L
1SS119
1SS198TA


CATHODE
ANODE

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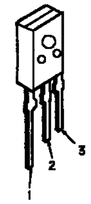
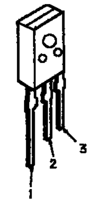
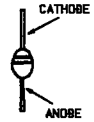


D10SC6MR



ERC38-06
V09G
V30N


CATHODE
ANODE

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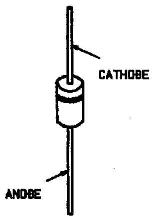
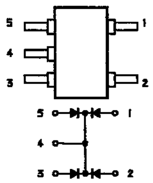
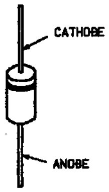
RU-1C


CATHODE
ANODE

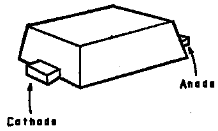
FMN1


5
4
3
1
2
5
1
4
3
2

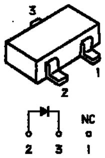
GP08D
ERD28-08S
RD27FB2
SB140


CATHODE
ANODE

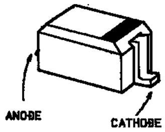
MA110
MA3130


Anode
Cathode

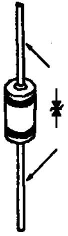
RD15M-B1
RD18M-B1
RD5.1M-B3



RD3.3M-B1
RD5.6S-B
RD6.2S-B
RD6.8M-B1


ANODE
CATHODE

RD9.1E-W



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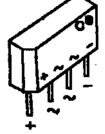
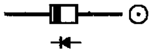
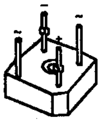


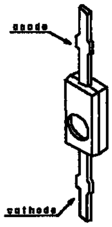
S3V10SB



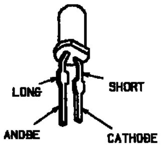
S5VB60



1T33


anode
cathode

TLR124


LONG
SHORT
ANODE
CATHODE

SECTION 7
EXPLODED VIEWS

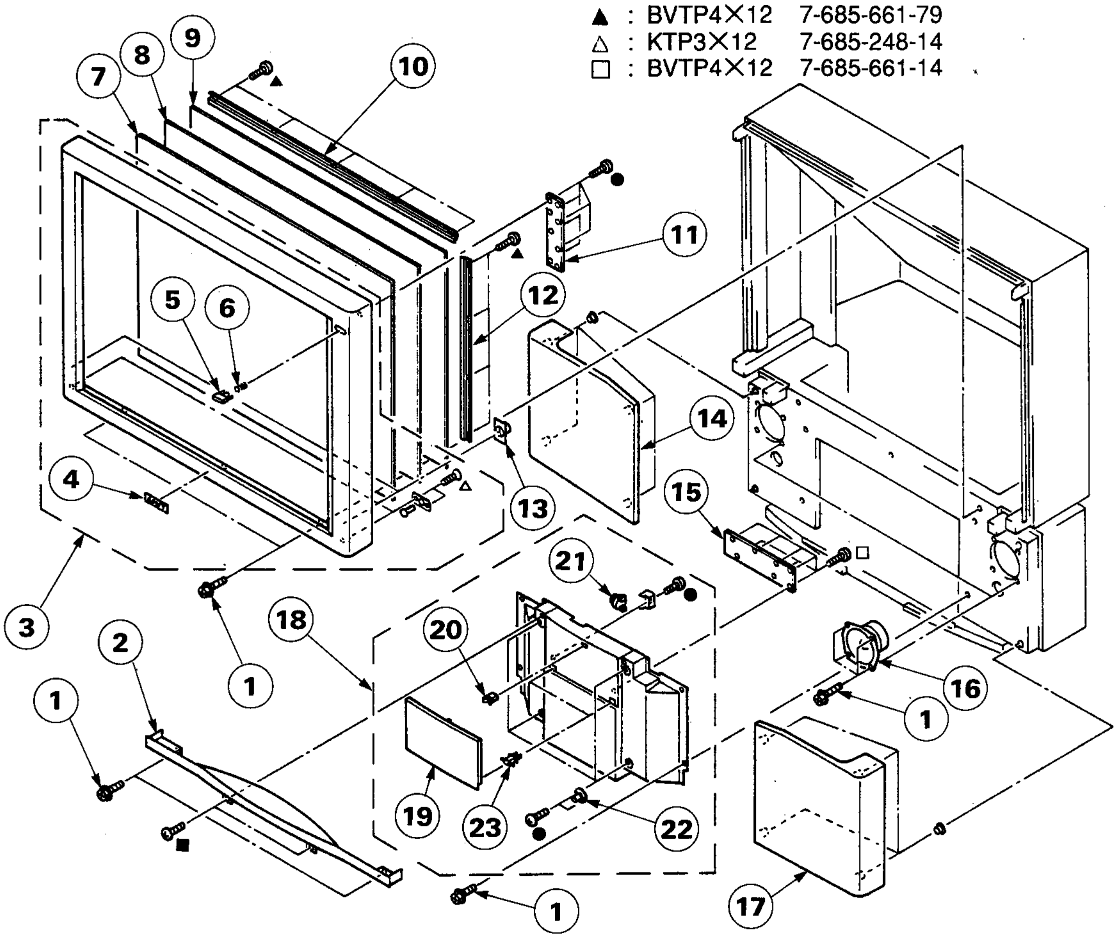
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

7-1-1. SCREEN FRAME AND CONTROL PANEL
(KP-46XBR35/53XBR35 (US/CND)

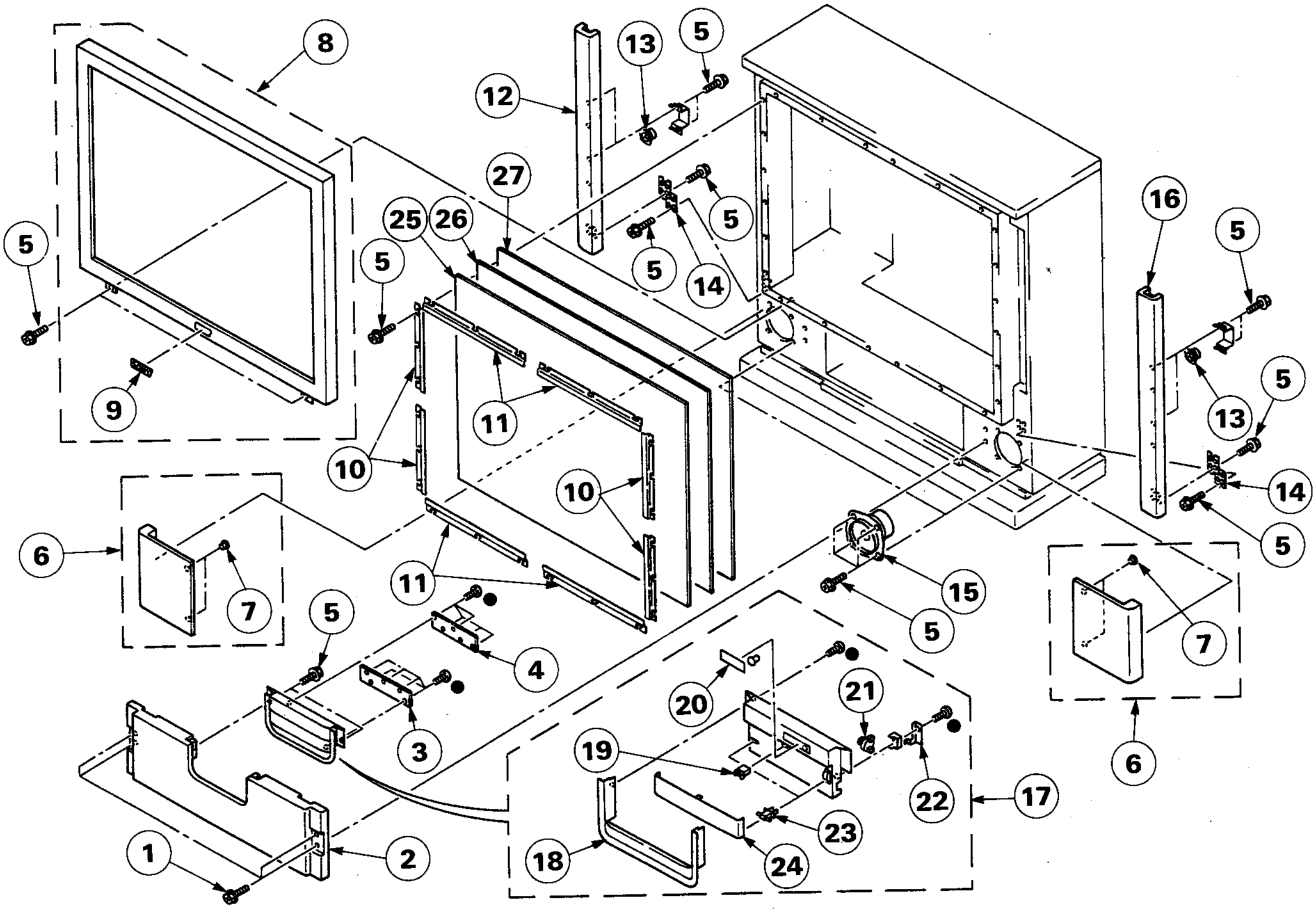
● : BVTP3×12 7-685-648-79
■ : BVTP4×16 7-685-663-79
▲ : BVTP4×12 7-685-661-79
△ : KTP3×12 7-685-248-14
□ : BVTP4×12 7-685-661-14



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-041-164-11	SCREW (4X20), TAPPING	
2	4-036-470-01	ESCUTCHEON, FRONT	
3	X-4031-193-1	FRAME ASSY, SCREEN (KP-46XBR35)	4-6
	X-4031-194-1	FRAME ASSY, SCREEN (KP-53XBR35(U/C))	4-6
4	4-381-079-01	EMBLEM (NO.10), SONY	
5	4-036-523-01	BUTTON, POWER	
6	3-566-903-00	SPRING	
7	4-043-235-01	FILTER (53), SCREEN (KP-53XBR35(U/C))	
	4-043-238-01	FILTER (46), SCREEN (KP-46XBR35)	
8	4-037-360-11	PLATE (L), DIFFUSION (KP-46XBR35)	
	4-036-466-01	PLATE (L), DIFFUSION (KP-53XBR35(U/C))	
9	4-037-359-11	PLATE (F), DIFFUSION (KP-46XBR35)	
	4-036-469-11	PLATE (F), DIFFUSION (KP-53XBR35(U/C))	
10	4-043-240-01	HOLDER (L), SCREEN (UNDER)(KP-46XBR35)	
	4-043-240-11	HOLDER (L), SCREEN (UNDER)(KP-53XBR35(U/C))	
	4-043-240-21	HOLDER (L), SCREEN (TOP) (KP-46XBR35)	
	4-043-240-31	HOLDER (L), SCREEN (TOP) (KP-53XBR35(U/C))	
11	*1-643-591-11	H1 BOARD	
12	4-043-239-01	HOLDER (S), SCREEN	
13	1-544-580-21	SPEAKER (2.5CM)	
14	X-4030-553-1	GRILLE (L) ASSY, SPEAKER (KP-53XBR35(U/C))	
	X-4030-570-1	GRILLE (L) ASSY, SPEAKER (KP-46XBR35)	
15	*1-643-592-11	H2 BOARD	
16	1-504-141-11	SPEAKER (13CM)	
17	X-4030-552-1	GRILLE (R) ASSY, SPEAKER (KP-53XBR35(U/C))	
	X-4030-569-1	GRILLE (R) ASSY, SPEAKER (KP-46XBR35)	
18	X-4030-554-1	PANEL ASSY, CONTROL (KP-53XBR35(U/C))	
	X-4030-571-1	PANEL ASSY, CONTROL (KP-46XBR35)	
19	4-036-461-01	LID, CONTROL (KP-46XBR35)	
	4-036-475-01	LID, CONTROL (KP-53XBR35(U/C))	
20	4-392-036-01	CATCHER, PUSH	
21	3-721-204-01	DAMPER (KP-53XBR35(U/C))	
	3-721-204-21	DAMPER (KP-46XBR35)	
22	4-843-806-00	STRIKE	
23	3-703-035-12	SHAFT, LID	

7-1-2. SCREEN FRAME AND CONTROL PANEL (KP-61XBR38)

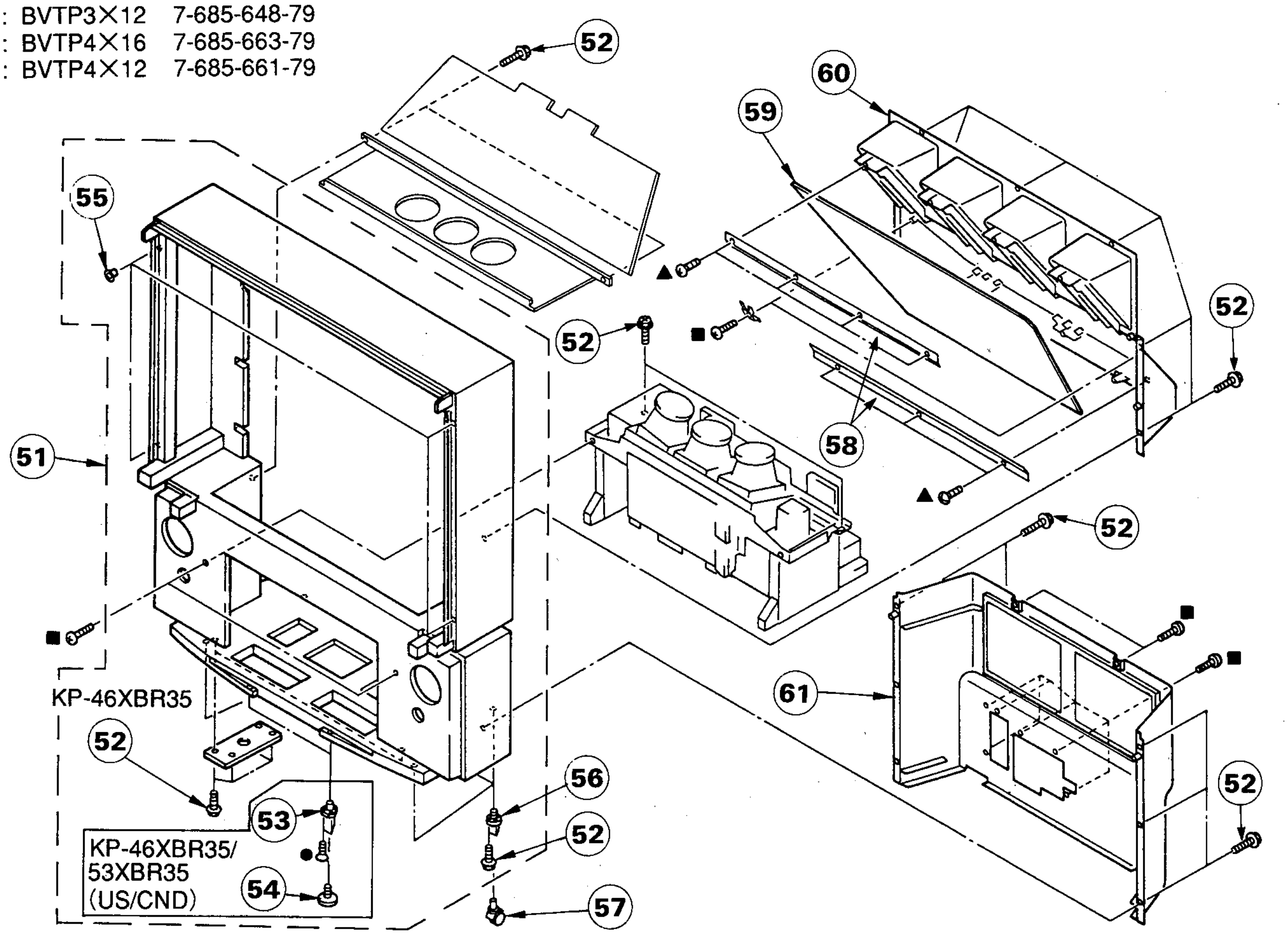
● : BVTP3X12 7-685-648-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-378-522-21	SCREW, TAPPING, HEXAGON HEAD	
2	X-4031-228-1	PANEL ASSY, FRONT	
3	*1-643-592-11	H2 BOARD	
4	*1-643-591-11	H1 BOARD	
5	4-041-164-11	SCREW (4X20), TAPPING	
6	X-4031-175-1	GRILLE (B) ASSY, SPEAKER	7
7	4-838-438-00	LATCH	
8	X-4031-177-1	FRAME ASSY, SCREEN	9
9	4-381-079-01	EMBLEM (NO.10), SONY	
10	*4-044-727-01	HOLDER (S), SCREEN	
11	*4-044-726-01	HOLDER (L), SCREEN	
12	X-4031-174-1	GRILLE (T/L) ASSY, SPEAKER	
13	1-504-312-11	SPEAKER (SQUAWKER) (5CM)	
14	*4-040-600-01	BRACKET, SPEAKER GRILLE	
15	1-504-313-11	SPEAKER (16CM)	
16	X-4031-173-1	GRILLE (T/R) ASSY, SPEAKER	
17	X-4031-179-1	PANEL ASSY, CONTROL	18-24
18	4-040-584-01	COVER, EDGE	
19	4-392-036-01	CATCHER, PUSH	
20	4-036-510-21	PANEL, INDICATOR	
21	3-720-417-01	DAMPER, OIL	
22	4-036-513-01	SPRING, LID	
23	3-703-035-12	SHAFT, LID	
24	4-036-511-21	LID, CONTROL	
25	4-044-725-11	FILTER, SCREEN	
26	4-040-124-11	PLATE (L), DIFFUSION	
27	4-040-123-11	PLATE (F), DIFFUSION	

7-2. CABINET

● : BVTP3×12 7-685-648-79
■ : BVTP4×16 7-685-663-79
▲ : BVTP4×12 7-685-661-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4031-084-1	CABINET ASSY (KP-46XBR35)	52-54,56
	X-4031-198-1	CABINET ASSY (KP-53XBR35(U/C))	52-54,56
	X-4031-887-1	CABINET ASSY (KP-61XBR38)	55,56
52	4-378-522-11	SCREW, TAPPING,HEXAGON HEAD(KP-61XBR38)	
	4-041-164-11	SCREW (M4X20), TAPPING (KP-46XBR35/53XBR35(U/C))	
53	4-037-473-01	NUT, FITTING (KP-46XBR35/53XBR35(U/C))	
54	4-037-472-01	LEG, ADJUSTABLE (KP-46XBR35/53XBR35(U/C))	
55	4-838-438-00	LATCH	
56	4-030-850-01	SOCKET, CASTER	
57	4-032-343-11	CASTER (KP-46XBR35/53XBR35(U/C))	
	4-040-508-11	CASTER (KP-61XBR38)	

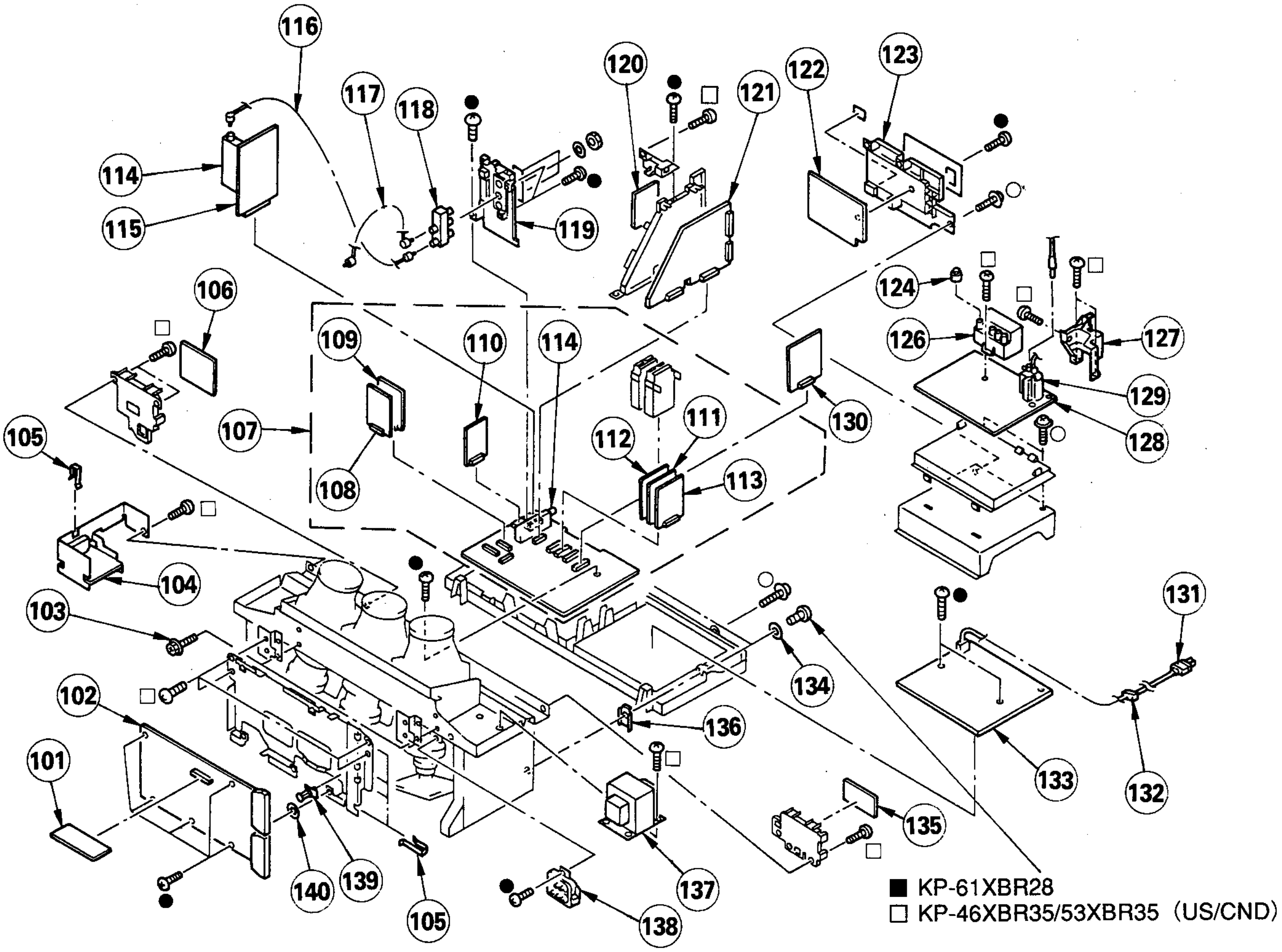
REF.NO.	PART NO.	DESCRIPTION	REMARK
58	*4-037-351-01	HOLDER, MIRROR	
59	4-037-349-01	MIRROR (53), REFLECTION(KP-53XBR35(U/C))	
	4-037-534-01	MIRROR (46), REFLECTION (KP-46XBR35)	
	4-040-713-01	MIRROR (61), REFLECTION (KP-61XBR38)	
60	4-036-462-01	COVER (46"), MIRROR (KP-46XBR35)	
	4-036-474-01	COVER (53"), MIRROR (KP-53XBR35(U/C))/61XBR38)	
61	X-4030-549-1	COVER ASSY, BACK	

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

7-3. CHASSIS

● : BVTP3X12 7-685-648-79
■ : BVTP4X16 7-685-663-79
○ : PSW4X14 7-682-663-09
□ : BVTP4X12 7-685-661-14



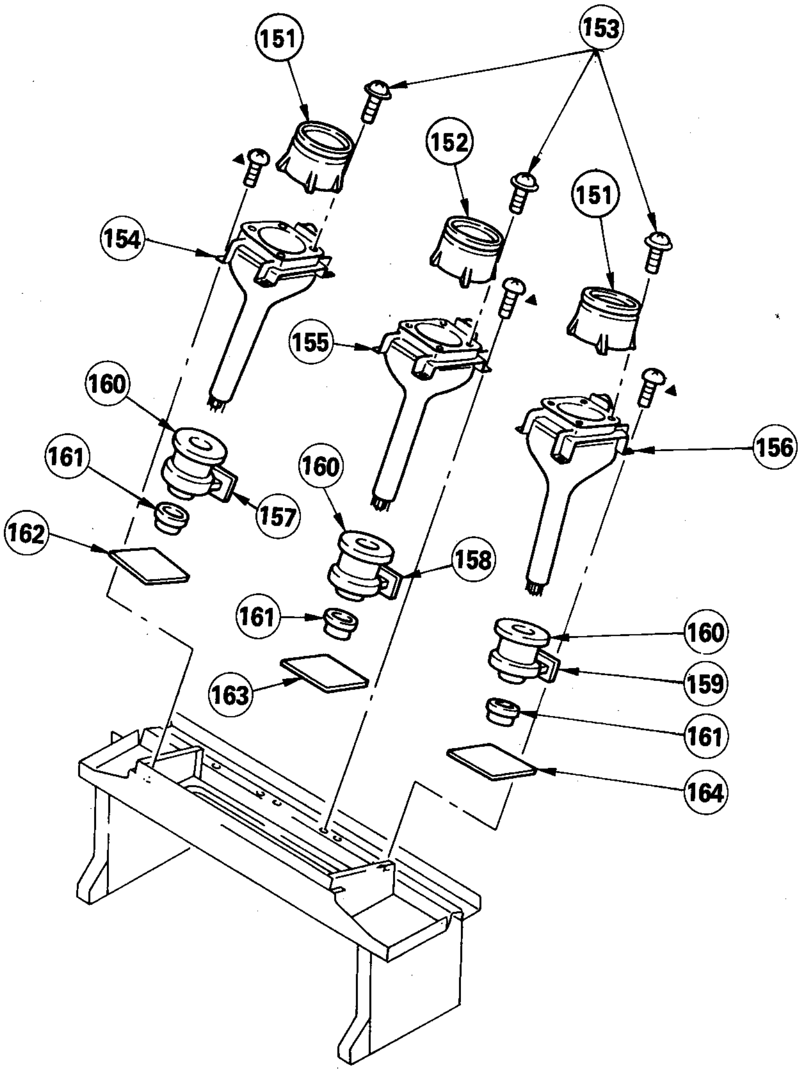
REF.NO.	PART NO.	DESCRIPTION	REMARK
101	*1-650-883-11	DS BOARD	
102	*A-1341-726-A	D BOARD, COMPLETE	
103	4-041-164-11	SCREW (4X20), TAPPING	
104	*1-644-632-11	YA BOARD	
105	*4-393-401-11	SPRING, TRANSISTOR	
106	*A-1394-421-A	S BOARD, COMPLETE	
107	*A-1297-104-A	A BOARD, COMPLETE (KP-53XBR35(U/C))	108-114
	*A-1297-105-A	A BOARD, COMPLETE (KP-46XBR35/61XBR38)	108-114
108	*A-1394-442-A	Y2 BOARD, COMPLETE	
109	*A-1394-446-A	X3 BOARD, COMPLETE	
110	*A-1195-067-A	P2 BOARD, COMPLETE	
111	*A-1346-136-A	E2 BOARD, COMPLETE	
112	*A-1306-435-A	M BOARD, COMPLETE	
113	*A-1346-138-A	E1 BOARD, COMPLETE	
114	⚠1-693-102-21	TUNER (BTF-XA401)	
115	*A-1195-069-A	P3 BOARD, COMPLETE	
116	*1-557-056-31	CABLE, P-P	
117	*1-555-400-00	CABLE, PIN	
118	1-417-178-11	SELECTOR, ANTENNA (AS-2)	
119	4-036-137-01	PANEL, SUB CONNECTOR	
120	*A-1195-065-A	P4 BOARD, COMPLETE	
121	*A-1394-429-A	U BOARD, COMPLETE	
122	*A-1394-434-A	UT BOARD, COMPLETE	
123	4-036-138-11	PANEL, MAIN CONNECTOR	
124	4-373-137-01	CAP (Z), RUBBER	
126	⚠1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
127	4-034-482-01	COVER, FBT	
128	*A-1390-351-A	N BOARD, COMPLETE	
129	⚠1-453-121-11	TRANSFORMER ASSY, FLYBACK (NX-2630B4)	
130	*A-1342-214-A	V BOARD, COMPLETE	
131	⚠1-696-002-12	CORD, POWER(WITH NOISE FILTER)7.0A/125V	
132	⚠4-388-328-12	GROMMET, AC CORD	
133	*A-1316-178-A	G BOARD, COMPLETE	
134	4-042-667-01	WASHER, WAVE	
135	*1-664-633-11	YG BOARD	
136	*4-040-487-01	SPACER	
137	⚠1-423-311-21	TRANSFORMER, POWER	
138	⚠1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)	
139	*3-670-570-21	SPACER, SUPPORT	
140	4-866-147-00	WASHER	

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

7-4. PICTURE TUBE

▲ : BVTP4×12 7-685-661-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
151	4-034-057-11	LENS (LINNIT) (KP-46XBR35/53XBR35(U/C))	
	4-040-131-01	LENS (LINNIT) (KP-61XBR38)	
152	4-034-057-01	LENS (LINNIT) (KP-46XBR35/53XBR35(U/C))	
	4-040-131-11	LENS (LINNIT) (KP-61XBR38)	
153	3-701-810-91	SCREW, TERMINAL	
154	⚠8-736-636-05	PICTURE TUBE 07MK3(R) (KP-46XBR35/53XBR35(U/C))	
	⚠8-736-641-05	PICTURE TUBE 07MK2(R) (KP-61XBR38)	
155	⚠8-736-634-05	PICTURE TUBE 07MK3(G)	
156	⚠8-736-635-05	PICTURE TUBE 07MK3(B) (KP-46XBR35/53XBR35(U/C))	
	⚠8-736-640-05	PICTURE TUBE 07MK2(B) (KP-61XBR38)	
157	*A-1390-340-A	ZR BOARD, COMPLETE	
158	*A-1390-346-A	ZG BOARD, COMPLETE	
159	*A-1390-347-A	ZB BOARD, COMPLETE	
160	⚠1-451-396-21	DEFLECTION YOKE (Y936PA)	
161	⚠1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)	
162	*A-1331-259-A	CR BOARD, COMPLETE	
163	*A-1331-260-A	CG BOARD, COMPLETE	
164	*A-1331-261-A	CB BOARD, COMPLETE	

P4

ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- ✱ : Selected to yield optimum performance.
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION		REMARK
	*A-1195-065-A	P4 BOARD, COMPLETE		
		******************		
		<CAPACITOR>		
C1201	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1202	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C1203	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C1204	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V
C1205	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C1206	1-163-093-00	CERAMIC CHIP 10PF	5%	50V
C1207	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1208	1-163-237-11	CERAMIC CHIP 27PF	5%	50V
C1210	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C1211	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1213	1-126-154-11	ELECT 47MF	20%	6.3V
C1214	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1215	1-126-154-11	ELECT 47MF	20%	6.3V
C1216	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1217	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1218	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1219	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1220	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1221	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1222	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1223	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1224	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1225	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1226	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1227	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1228	1-126-154-11	ELECT 47MF	20%	6.3V
C1229	1-126-157-11	ELECT 10MF	20%	6.3V
C1230	1-126-157-11	ELECT 10MF	20%	6.3V
C1231	1-126-157-11	ELECT 10MF	20%	6.3V
C1232	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1233	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1234	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1235	1-124-257-00	ELECT 2.2MF	20%	50V
C1237	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1238	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1239	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1240	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V
C1241	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V
C1242	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C1243	1-126-177-11	ELECT 100MF	20%	6.3V
C1245	1-126-157-11	ELECT 10MF	20%	6.3V
C1246	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1249	1-126-157-11	ELECT 10MF	20%	6.3V
C1250	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1251	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1252	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V

REF.NO.	PART NO.	DESCRIPTION		REMARK
C1253	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1254	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1255	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1256	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V
		<FILTER>		
FL1201	1-239-550-11	FILTER, LOW PASS		
FL1202	1-239-550-11	FILTER, LOW PASS		
FL1203	1-239-550-11	FILTER, LOW PASS		
		<IC>		
IC1201	8-752-352-20	IC CXD2023Q		
IC1202	8-752-062-80	IC CXA1686M		
IC1203	8-759-112-06	IC UPC78N05H		
IC1204	8-759-112-06	IC UPC78N05H		
		<COIL>		
L1201	1-408-423-00	INDUCTOR 150UH		
L1202	1-414-042-21	INDUCTOR 18UH		
L1205	1-414-042-21	INDUCTOR 18UH		
		<CONNECTOR>		
P4-32	*1-564-522-11	PLUG, CONNECTOR 7P		
		<TRANSISTOR>		
Q1202	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q1203	8-729-216-22	TRANSISTOR 2SA1162-G		
Q1204	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q1205	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q1206	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q1207	8-729-216-22	TRANSISTOR 2SA1162-G		
Q1208	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q1209	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q1211	8-729-216-22	TRANSISTOR 2SA1162-G		
Q1212	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q1213	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q1214	8-729-216-22	TRANSISTOR 2SA1162-G		
Q1215	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
Q1218	8-729-216-22	TRANSISTOR 2SA1162-G		
Q1220	8-729-901-01	TRANSISTOR DTC144EK		
		<RESISTOR>		
R1201	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R1202	1-216-001-00	METAL GLAZE 10	5%	1/10W
R1203	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1204	1-216-630-11	METAL CHIP 130	0.50%	1/10W
R1205	1-216-639-11	METAL CHIP 330	0.50%	1/10W

P4 **P3**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1206	1-216-620-11	METAL CHIP	51	0.50%	1/10W	
R1207	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1208	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1209	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R1210	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1211	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1212	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1213	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1214	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1215	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1216	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1217	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1218	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R1219	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R1220	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R1221	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1222	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R1223	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1224	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1225	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R1226	1-216-666-11	METAL CHIP	4.3K	0.50%	1/10W	
R1228	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1229	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1230	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1232	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R1233	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1234	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1235	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1238	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1239	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1241	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1242	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1243	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R1244	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1245	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1246	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1247	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1248	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R1249	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1250	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1251	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1252	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1253	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1254	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1255	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R1256	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1257	1-216-645-11	METAL CHIP	560	0.50%	1/10W	
R1258	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1259	1-216-644-11	METAL CHIP	510	0.50%	1/10W	
R1260	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1261	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1262	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1263	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1264	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1265	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1266	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1267	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1268	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1269	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1270	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1273	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1274	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1276	1-216-295-00	METAL GLAZE	0	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1284	1-216-025-00	METAL GLAZE	100	5%	1/10W	

<CRYSTAL>

X1201	1-577-611-11	OSCILALTOR, CERAMIC
X1202	1-567-878-11	VIBRATOR, CRYSTAL

****

*A-1195-069-A P3 BOARD, COMPLETE
****

<CAPACITOR>

C2001	1-124-910-11	ELECT	47MF	20%	50V
C2002	1-124-910-11	ELECT	47MF	20%	50V
C2003	1-124-119-00	ELECT	330MF	20%	16V
C2004	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2005	1-124-261-00	ELECT	10MF	20%	50V
C2006	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2007	1-126-157-11	ELECT	10MF	20%	16V
C2008	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2009	1-136-157-00	FILM	0.022MF	5%	50V
C2010	1-164-161-11	CERAMIC CHIP	0.0022MF		50V
C2011	1-126-157-11	ELECT	10MF	20%	16V
C2013	1-126-301-11	ELECT	1MF	20%	50V
C2014	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C2015	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C2016	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C2017	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C2018	1-124-465-00	ELECT	0.47MF	20%	50V
C2019	1-126-103-11	ELECT	470MF	20%	16V
C2020	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2021	1-126-157-11	ELECT	10MF	20%	16V
C2022	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2023	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C2024	1-124-465-00	ELECT	0.47MF	20%	50V
C2025	1-126-157-11	ELECT	10MF	20%	16V
C2026	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C2027	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C2028	1-163-107-00	CERAMIC CHIP	39PF	5%	50V
C2029	1-124-477-11	ELECT	47MF	20%	16V
C2031	1-124-910-11	ELECT	47MF	20%	50V
C2032	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2034	1-126-157-11	ELECT	10MF	20%	16V
C2035	1-126-157-11	ELECT	10MF	20%	16V
C2036	1-163-025-11	CERAMIC CHIP	0.001MF		50V
C2037	1-124-477-11	ELECT	47MF	20%	16V
C2038	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C2039	1-124-477-11	ELECT	47MF	20%	16V
C2040	1-124-903-11	ELECT	1MF	20%	50V
C2041	1-137-366-11	FILM	0.0022MF	5%	50V
C2042	1-124-902-00	ELECT	0.47MF	20%	50V
C2043	1-136-161-00	FILM	0.047MF	5%	50V
C2044	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2045	1-126-157-11	ELECT	10MF	20%	16V
C2046	1-136-169-00	FILM	0.22MF	5%	50V
C2047	1-124-463-00	ELECT	0.1MF	20%	50V
C2048	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2049	1-136-165-00	FILM	0.1MF	5%	50V
C2050	1-124-902-00	ELECT	0.47MF	20%	50V
C2051	1-126-157-11	ELECT	10MF	20%	16V
C2052	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C2053	1-163-093-00	CERAMIC CHIP	10PF	5%	50V

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

P3

REF.NO.	PART NO.	DESCRIPTION				REMARK
C2054	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	
C2055	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C2056	1-136-161-00	FILM	0.047MF	5%	50V	
C2057	1-124-477-11	ELECT	47MF	20%	16V	
C2058	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C2059	1-136-177-00	FILM	1MF	5%	50V	
C2060	1-136-153-00	FILM	0.01MF	5%	50V	
C2061	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C2062	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C2063	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C2064	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C2065	1-126-320-11	ELECT	10MF	20%	16V	
C2066	1-126-157-11	ELECT	10MF	20%	16V	
C2067	1-126-157-11	ELECT	10MF	20%	16V	
C2068	1-124-916-11	ELECT	22MF	20%	50V	
C2070	1-163-257-11	CERAMIC CHIP	180PF	5%	50V	
C2073	1-124-477-11	ELECT	47MF	20%	16V	
C2075	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	

<NETWORK>

REF.NO.	PART NO.	DESCRIPTION
CP2001	1-236-472-11	NETWORK, RES, THICK FILM

<TRIMMER>

REF.NO.	PART NO.	DESCRIPTION
CV2001	1-141-245-00	CAP, TRIMMER

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D2003	8-719-106-16	DIODE RD6.8M-B1
D2004	8-719-404-46	DIODE MA110
D2005	8-719-404-46	DIODE MA110
D2006	8-719-105-45	DIODE RD3.3M-B1
D2007	8-719-911-19	DIODE 1SS119

<FILTER>

REF.NO.	PART NO.	DESCRIPTION
FL2001	1-235-941-11	YC MODULE

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC2001	8-759-231-58	IC TA7812S
IC2002	8-759-700-48	IC NJM2903S
IC2003	8-759-805-37	IC L78LR05D-MA
IC2004	8-759-066-51	IC MB88733-143
IC2005	8-759-803-25	IC CXK1006L
IC2006	8-752-006-12	IC CX20061
IC2007	8-752-033-32	IC CXA1228S

<JACK>

REF.NO.	PART NO.	DESCRIPTION
J2001	*1-573-962-11	CONNECTOR (MALE) 50P

<COIL>

REF.NO.	PART NO.	DESCRIPTION	
L2002	1-410-663-31	INDUCTOR	10UH
L2003	1-410-667-31	INDUCTOR	22UH
L2004	1-410-663-31	INDUCTOR	10UH
L2009	1-410-663-31	INDUCTOR	10UH
L2010	1-410-677-31	INDUCTOR	180UH
L2011	1-410-677-31	INDUCTOR	180UH

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
P3-39	*1-564-521-11	PLUG, CONNECTOR 6P	
P3-40	*1-564-519-11	PLUG, CONNECTOR 4P	
P3-41	*1-564-519-11	PLUG, CONNECTOR 4P	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q2001	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2002	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2003	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2004	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2005	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2006	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2007	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2008	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2009	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2010	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2011	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2012	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2015	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2016	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2017	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2018	8-729-420-81	TRANSISTOR 2SD874A-R	
Q2019	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2020	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2021	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2022	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2023	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2024	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2025	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2026	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2027	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2028	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2029	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2030	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2031	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2032	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2033	8-729-600-12	TRANSISTOR 2SK108-C	
Q2034	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2035	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2036	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2002⚠	1-216-357-91	METAL OXIDE	4.7	5%	1W	F
R2003	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2004	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2006	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R2007	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2008	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2009	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2010	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2011	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2012	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R2013	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2014	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R2015	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2016	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2017	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R2018	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2019	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2020	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R2021	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R2022	1-216-109-00	METAL GLAZE	330K	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2023	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2024	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R2025	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2026	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2027	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2028	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2029	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2030	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R2031	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2032	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2033	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2034	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2035	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2036	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2037	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2038	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2039	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2040	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2041	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2042	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2043	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2044	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2045	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2046	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2047	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2048	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2049	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2050	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2051	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2052	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2053	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2054	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2055	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2056	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2057	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2058	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2059	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2060	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2061	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2062	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2063	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2064	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2074	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2075	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2076	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2077	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R2078	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2079	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2080	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2081	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2082	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2083	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R2084	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R2085	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2086	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2087	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2088	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R2089	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2090	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2091	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2093	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2094	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R2095	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R2096	1-216-105-00	METAL GLAZE	220K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2097	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2100	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2101	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R2102	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2104	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2105	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2106	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2107	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R2108	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2109	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2110	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2111	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2112	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2113	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2114	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2115	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2116	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R2117	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2118	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2119	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2122	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2124	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2125	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R2127	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R2128	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R2129	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R2130	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2131	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2132	1-216-676-11	METAL CHIP	11K	0.50%	1/10W	
R2133	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2134	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2135	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2136	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2137	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2138	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2139	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2140	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2141	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R2142	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2143	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2144	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2145	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2146	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2147	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2148	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2149	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2152	1-216-295-00	METAL GLAZE	0	5%	1/10W	

<VARIABLE RESISTOR>

RV2001	1-238-015-11	RES, ADJ, CARBON 4.7K
RV2002	1-238-019-11	RES, ADJ, CARBON 47K
RV2003	1-238-017-11	RES, ADJ, CARBON 22K
RV2004	1-238-017-11	RES, ADJ, CARBON 22K

<TUNER>

TU2001⚠	1-693-102-21	TUNER (BTF-XA401)

<CRYSTAL>

X2001	1-567-192-11	OSCILLATOR, CERAMIC
X2002	1-567-505-11	OSCILLATOR, CRYSTAL

A

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REF.NO.	PART NO.	DESCRIPTION			REMARK
**					
	*A-1297-104-A	A BOARD, COMPLETE (KP-53XBR35(U/C)) *****************			
	*A-1297-105-A	A BOARD, COMPLETE (KP-46XBR35/61XBR38) *****************			
	4-365-216-00	SPACER, MICA			
	4-382-854-11	SCREW (M3X10), P, SW (+)			

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
A-1	*1-564-514-11	PLUG, CONNECTOR 11P
A-2	*1-564-512-11	PLUG, CONNECTOR 9P
A-3	*1-564-507-11	PLUG, CONNECTOR 4P
A-4	*1-564-508-11	PLUG, CONNECTOR 5P
A-5	*1-564-511-51	PLUG, CONNECTOR 8P
A-7	*1-564-505-11	PLUG, CONNECTOR 2P
A-9	*1-564-505-11	PLUG, CONNECTOR 2P
A-10	*1-564-511-81	PLUG, CONNECTOR 8P
A-11	*1-564-511-71	PLUG, CONNECTOR 8P
A-12	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P
A-13	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P
A-14	*1-564-513-11	PLUG, CONNECTOR 10P
A-15	*1-564-508-11	PLUG, CONNECTOR 5P
A-16	*1-564-508-11	PLUG, CONNECTOR 5P
A-17	*1-564-508-11	PLUG, CONNECTOR 5P
A-18	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P
A-19	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P
A-20	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P
A-21	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
A-22	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P
A-25	*1-564-506-11	PLUG, CONNECTOR 3P
A-27	1-573-297-21	CONNECTOR, BOARD TO BOARD 18P
A-28	*1-564-508-11	PLUG, CONNECTOR 5P
A-38	1-564-505-11	PLUG, CONNECTOR 2P
A-56	*1-564-508-11	PLUG, CONNECTOR 5P
P3-1	*1-573-960-11	CONNECTOR (FEMALE) 50P

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C201	1-124-910-11	ELECT	47MF	20%	50V
C202	1-124-903-11	ELECT	1MF	20%	50V
C203	1-130-495-00	MYLAR	0.1MF	5%	50V
C204	1-124-477-11	ELECT	47MF	20%	16V
C205	1-124-557-11	ELECT	1000MF	20%	25V
C206	1-126-101-11	ELECT	100MF	20%	16V
C207	1-124-286-00	ELECT	33MF	20%	16V
C210	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C212	1-126-803-11	ELECT	47MF	20%	16V
C213	1-126-103-11	ELECT	470MF	20%	16V
C214	1-126-101-11	ELECT	100MF	20%	16V
C215	1-126-803-11	ELECT	47MF	20%	50V
C216	1-126-101-11	ELECT	100MF	20%	16V
C217	1-126-803-11	ELECT	47MF	20%	25V
C218	1-126-103-11	ELECT	470MF	20%	16V
C219	1-124-443-00	ELECT	100MF	20%	10V
C220	1-126-803-11	ELECT	47MF	20%	25V
C223	1-126-803-11	ELECT	47MF	20%	25V
C224	1-124-261-00	ELECT	10MF	20%	50V
C225	1-124-120-11	ELECT	220MF	20%	16V
C226	1-124-120-11	ELECT	220MF	20%	16V
C227	1-124-621-11	ELECT	3300MF	20%	6.3V
C299	1-126-101-11	ELECT	100MF	20%	16V
C502	1-126-182-11	ELECT	0.47MF	20%	50V
C503	1-130-487-00	MYLAR	0.022MF	5%	50V
C504	1-136-153-00	FILM	0.01MF	5%	50V
C507	1-106-383-00	MYLAR	0.047MF		200V
C508	1-102-973-00	CERAMIC	100PF	5%	50V
C509	1-102-030-00	CERAMIC	330PF	10%	500V
C510	⚠1-136-565-11	FILM	0.015MF	3%	1.4KV
C512	⚠1-136-598-11	FILM	3MF	5%	200V
C513	1-136-153-00	FILM	0.01MF	5%	50V
C514	1-124-477-11	ELECT	47MF	20%	16V
C522	1-123-024-21	ELECT	33MF		160V
C523	1-106-383-00	MYLAR	0.047MF		200V
C528	1-124-662-11	ELECT	220MF	20%	50V
C534	1-124-011-00	ELECT	220MF	20%	16V
C535	1-124-011-00	ELECT	220MF	20%	16V
C536	1-124-662-11	ELECT	220MF	20%	50V
C537	1-124-662-11	ELECT	220MF	20%	50V
C539	1-124-907-11	ELECT	10MF	20%	50V
C542	1-136-153-00	FILM	0.01MF	5%	50V
C543	1-136-153-00	FILM	0.01MF	5%	50V
C544	1-136-153-00	FILM	0.01MF	5%	50V
C545	1-136-153-00	FILM	0.01MF	5%	50V
C569	1-126-355-11	ELECT	33MF	20%	160V
C1401	1-124-910-11	ELECT	47MF	20%	50V
C1402	1-126-157-11	ELECT	10MF	20%	16V
C1405	1-124-910-11	ELECT	47MF	20%	50V
C1406	1-126-101-11	ELECT	100MF	20%	16V
C1407	1-126-057-11	ELECT	2200MF	20%	50V
C1408	1-136-165-00	FILM	0.1MF	5%	50V
C1409	1-136-165-00	FILM	0.1MF	5%	50V
C1413	1-124-234-00	ELECT	22MF	20%	16V
C1424	1-126-057-11	ELECT	2200MF	20%	50V
C1425	1-126-057-11	ELECT	2200MF	20%	50V
C1426	1-126-157-11	ELECT	10MF	20%	16V
C1429	1-126-101-11	ELECT	100MF	20%	16V
C1430	1-126-101-11	ELECT	100MF	20%	16V
C1431	1-124-916-11	ELECT	22MF	20%	50V
C1435	1-126-233-11	ELECT	22MF	20%	25V
C1440	1-126-336-11	ELECT	220MF	20%	25V
C1601	1-130-483-00	MYLAR	0.01MF	5%	50V
C1603	1-136-153-00	FILM	0.01MF	5%	50V
C1607	1-124-907-11	ELECT	10MF	20%	50V
C1608	1-136-153-00	FILM	0.01MF	5%	50V
C1609	1-136-153-00	FILM	0.01MF	5%	50V
C1610	1-124-916-11	ELECT	22MF	20%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D201	8-719-121-24	DIODE RD9.1ESL
D202	8-719-121-24	DIODE RD9.1ESL
D203	8-719-911-19	DIODE 1SS119
D204	8-719-911-19	DIODE 1SS119
D205	8-719-110-36	DIODE RD13ESB2
D206	8-719-911-19	DIODE 1SS119
D207	8-719-911-19	DIODE 1SS119
D208	8-719-911-19	DIODE 1SS119
D209	8-719-911-19	DIODE 1SS119
D211	8-719-110-36	DIODE RD13ESB2
D213	8-719-110-78	DIODE RD33ESB2
D214	8-719-911-19	DIODE 1SS119
D215	8-719-911-19	DIODE 1SS119
D216	8-719-911-19	DIODE 1SS119
D217	8-719-911-19	DIODE 1SS119

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Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D219	8-719-911-19	DIODE 1SS119	
D220	8-719-510-48	DIODE D1N20R	
D221	8-719-911-19	DIODE 1SS119	
D222	8-719-911-19	DIODE 1SS119	
D223	8-719-911-19	DIODE 1SS119	
D501	8-719-971-20	DIODE ERC38-06	
D502	8-719-971-20	DIODE ERC38-06	
D503	8-719-300-80	DIODE RU-1C	
D504	8-719-109-88	DIODE RD5.6ESB1	
D505	8-719-900-63	DIODE V06C (KP-46XBR35/61XBR38)	
D506	8-719-900-63	DIODE V06C (KP-46XBR35/61XBR38)	
D507	8-719-970-89	DIODE DD50R	
D509	8-719-911-19	DIODE 1SS119	
D510	8-719-109-71	DIODE RD3.9ESB1	
D511	8-719-911-19	DIODE 1SS119	
D512	8-719-911-19	DIODE 1SS119	
D513	8-719-911-19	DIODE 1SS119	
D514	8-719-911-19	DIODE 1SS119	
D515	8-719-911-19	DIODE 1SS119	
D1401	8-719-911-19	DIODE 1SS119	
D1402	8-719-911-19	DIODE 1SS119	
D1403	8-719-911-19	DIODE 1SS119	
D1404	8-719-110-88	DIODE RD39ESB2	
D1405	8-719-110-88	DIODE RD39ESB2	
D1406	8-719-911-19	DIODE 1SS119	
D1407	8-719-110-88	DIODE RD39ESB2	
D1408	8-719-911-19	DIODE 1SS119	
D1409	8-719-110-88	DIODE RD39ESB2	
D1410	8-719-911-19	DIODE 1SS119	
D1607	8-719-911-19	DIODE 1SS119	
D1608	8-719-911-19	DIODE 1SS119	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC201	8-749-920-58	IC SI-3090CA	
IC204	8-759-231-53	IC TA7805S	
IC205	8-759-144-82	IC UPC2405HF	
IC206	8-759-231-58	IC TA7812S	
IC207	8-749-920-58	IC SI-3090CA	
IC506	8-752-057-18	IC CXA1315P	
IC1401	8-759-246-70	IC TA8216H	
IC1601	8-752-058-71	IC CXA1656S	

<JACK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J202	1-507-562-00	JACK	
J203	1-507-562-00	JACK	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L201	1-408-429-00	INDUCTOR 470UH	
L205	1-410-645-31	INDUCTOR 100UH	
L206	1-408-416-00	INDUCTOR 39UH	
L212	1-410-312-11	INDUCTOR 0.22UH	
L501	⚠1-460-196-11	COIL, HORIZONTAL LINEARITY	
L502	1-459-313-00	COIL WITH CORE (HWC)	
L515	1-410-645-31	INDUCTOR 100UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q203	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q501	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q502	8-729-014-88	TRANSISTOR 2SC4891-CA	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q502	
Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q505	8-729-201-32	TRANSISTOR 2SA1013-O	
Q506	8-729-201-32	TRANSISTOR 2SA1013-O	
Q507	8-729-304-92	TRANSISTOR 2SB649A-C	
Q508	8-729-204-16	TRANSISTOR 2SA1301-O	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q508	
Q509	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q510	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q512	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1402	8-729-900-63	TRANSISTOR DTA124ES	
Q1407	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1602	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1603	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1604	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1606	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1620	8-729-119-76	TRANSISTOR 2SA1175-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R201	1-247-807-31	CARBON	100	5%	1/4W	F
R202	1-247-807-31	CARBON	100	5%	1/4W	F
R203	1-249-425-11	CARBON	4.7K	5%	1/4W	
R204	1-249-441-11	CARBON	100K	5%	1/4W	
R214	1-249-429-11	CARBON	10K	5%	1/4W	
R215	1-249-437-11	CARBON	47K	5%	1/4W	
R216	1-249-377-11	CARBON	0.47	5%	1/4W	F
R219	1-249-426-11	CARBON	5.6K	5%	1/4W	
R221	1-249-409-11	CARBON	220	5%	1/4W	
R222	1-249-436-11	CARBON	39K	5%	1/4W	
R223	1-249-434-11	CARBON	27K	5%	1/4W	
R224	1-249-409-11	CARBON	220	5%	1/4W	
R225	1-249-417-11	CARBON	1K	5%	1/4W	
R229	⚠1-215-921-71	METAL OXIDE	4.7K	5%	3W	F
R230	⚠1-215-921-71	METAL OXIDE	4.7K	5%	3W	F
R231	1-249-409-11	CARBON	220	5%	1/4W	F
R232	⚠1-216-469-71	METAL OXIDE	12	5%	3W	F
R233	1-249-409-11	CARBON	220	5%	1/4W	
R234	1-249-409-11	CARBON	220	5%	1/4W	
R235	1-249-409-11	CARBON	220	5%	1/4W	
R236	1-249-409-11	CARBON	220	5%	1/4W	
R237	1-249-409-11	CARBON	220	5%	1/4W	
R238	1-249-409-11	CARBON	220	5%	1/4W	
R239	1-249-409-11	CARBON	220	5%	1/4W	
R240	⚠1-216-469-71	METAL OXIDE	12	5%	3W	F
R241	1-249-401-11	CARBON	47	5%	1/4W	
R242	⚠1-216-469-71	METAL OXIDE	12	5%	3W	F
R243	⚠1-217-288-11	WIREWOUND	1.5	10%	5W	F
R244	⚠1-217-296-11	WIREWOUND	6.8	10%	5W	F
R296	1-249-417-11	CARBON	1K	5%	1/4W	
R501	1-247-895-00	CARBON	470K	5%	1/4W	
R502	1-249-377-11	CARBON	0.47	5%	1/4W	F
R503	1-249-377-11	CARBON	0.47	5%	1/4W	F
R504	1-249-417-11	CARBON	1K	5%	1/4W	
R505	1-249-423-11	CARBON	3.3K	5%	1/4W	
R506	⚠1-215-922-91	METAL OXIDE	6.8K	5%	3W	F
R507	1-249-429-11	CARBON	10K	5%	1/4W	F
R508	⚠1-216-373-91	METAL OXIDE	2.2	5%	2W	F

A **E1**

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The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R509	⚠1-216-478-91	METAL OXIDE	390	5%	3W	F
R511	1-247-811-31	CARBON	150	5%	1/4W	
R512	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R513	1-249-417-11	CARBON	1K	5%	1/4W	
R514	⚠1-216-441-91	METAL OXIDE	27K	5%	1W	F
R515	1-249-432-11	CARBON	18K	5%	1/4W	F
R516	1-249-417-11	CARBON	1K	5%	1/4W	
R517	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R518	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R519	1-249-417-11	CARBON	1K	5%	1/4W	F
R520	⚠1-215-925-91	METAL OXIDE	22K	5%	3W	F
R521	⚠1-215-925-91	METAL OXIDE	22K	5%	3W	F
R522	1-249-421-11	CARBON	2.2K	5%	1/4W	
R523	1-249-434-11	CARBON	27K	5%	1/4W	
R524	1-249-434-11	CARBON	27K	5%	1/4W	
R525	⚠1-215-922-91	METAL OXIDE	6.8K	5%	3W	F
R526	1-249-417-11	CARBON	1K	5%	1/4W	
R528	⚠1-216-447-91	METAL OXIDE	27	5%	2W	F
R529	⚠1-216-447-91	METAL OXIDE	27	5%	2W	F
R530	1-249-431-11	CARBON	15K	5%	1/4W	
R531	1-249-431-11	CARBON	15K	5%	1/4W	
R532	1-249-385-11	CARBON	2.2	5%	1/4W	F
R533	1-247-807-31	CARBON	100	5%	1/4W	
R534	1-247-807-31	CARBON	100	5%	1/4W	
R535	1-247-807-31	CARBON	100	5%	1/4W	
R536	⚠1-217-316-11	WIREWOUND	330	10%	5W	F (KP-46XBR35/61XBR38)
R537	⚠1-217-316-11	WIREWOUND	330	10%	5W	F (KP-46XBR35/61XBR38)
R550	1-249-385-11	CARBON	2.2	5%	1/4W	F
R558	1-249-385-11	CARBON	2.2	5%	1/4W	F
R559	1-249-409-11	CARBON	220	5%	1/4W	
R560	1-249-409-11	CARBON	220	5%	1/4W	
R563	1-249-429-11	CARBON	10K	5%	1/4W	
R564	1-249-429-11	CARBON	10K	5%	1/4W	
R565	1-249-427-11	CARBON	6.8K	5%	1/4W	
R566	1-249-427-11	CARBON	6.8K	5%	1/4W	
R567	1-249-427-11	CARBON	6.8K	5%	1/4W	
R568	1-249-427-11	CARBON	6.8K	5%	1/4W	
R569	1-249-426-11	CARBON	5.6K	5%	1/4W	
R570	1-249-441-11	CARBON	100K	5%	1/4W	
R571	1-249-429-11	CARBON	10K	5%	1/4W	
R572	1-249-429-11	CARBON	10K	5%	1/4W	
R574	1-249-417-11	CARBON	1K	5%	1/4W	
R579	1-249-417-11	CARBON	1K	5%	1/4W	
R1401	1-215-445-00	METAL	10K	1%	1/4W	
R1402	1-215-445-00	METAL	10K	1%	1/4W	
R1403	1-215-445-00	METAL	10K	1%	1/4W	
R1404	1-215-445-00	METAL	10K	1%	1/4W	
R1405	1-249-385-11	CARBON	2.2	5%	1/4W	
R1406	1-249-385-11	CARBON	2.2	5%	1/4W	
R1409	1-249-433-11	CARBON	22K	5%	1/4W	
R1410	1-249-433-11	CARBON	22K	5%	1/4W	
R1411	1-249-437-11	CARBON	47K	5%	1/4W	
R1427	⚠1-215-865-91	METAL OXIDE	220	5%	1W	F
R1428	⚠1-215-865-91	METAL OXIDE	220	5%	1W	F
R1431	1-247-807-31	CARBON	100	5%	1/4W	
R1433	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1434	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1439	1-247-883-00	CARBON	150K	5%	1/4W	
R1440	1-249-417-11	CARBON	1K	5%	1/4W	
R1442	1-249-398-11	CARBON	27	5%	1/4W	
R1443	1-249-398-11	CARBON	27	5%	1/4W	
R1520	1-249-429-11	CARBON	10K	5%	1/4W	
R1601	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1602	1-249-417-11	CARBON	1K	5%	1/4W	
R1603	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1604	1-247-807-31	CARBON	100	5%	1/4W	
R1605	1-247-807-31	CARBON	100	5%	1/4W	
R1606	1-247-807-31	CARBON	100	5%	1/4W	
R1607	1-249-415-11	CARBON	680	5%	1/4W	
R1608	1-249-415-11	CARBON	680	5%	1/4W	
R1609	1-249-415-11	CARBON	680	5%	1/4W	
R1610	1-247-807-31	CARBON	100	5%	1/4W	
R1611	1-247-807-31	CARBON	100	5%	1/4W	
R1612	1-247-807-31	CARBON	100	5%	1/4W	
R1613	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1614	1-249-411-11	CARBON	330	5%	1/4W	
R1622	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1624	1-249-424-11	CARBON	3.9K	5%	1/4W	
R1627	1-249-429-11	CARBON	10K	5%	1/4W	
R1630	1-249-434-11	CARBON	27K	5%	1/4W	
R1631	1-249-433-11	CARBON	22K	5%	1/4W	
R1656	1-249-397-11	CARBON	22	5%	1/4W	
R1657	1-249-397-11	CARBON	22	5%	1/4W	
R1658	1-249-397-11	CARBON	22	5%	1/4W	

<TRANSFORMER>

T501	⚠1-439-545-11	TRANSFORMER, FERRITE	
T502	⚠1-437-078-11	TRANSFORMER, HORIZONTAL DRIVE	

<TUNER>

TU101	⚠1-693-102-21	TUNER (BTF-XA401)	

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*A-1346-138-A E1 BOARD, COMPLETE
****

<CAPACITOR>

C301	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V
C303	1-126-157-11	ELECT	10MF	20%	16V
C304	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C305	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C306	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C309	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C310	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C314	1-124-667-11	ELECT	10MF	20%	16V
C315	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C319	1-126-157-11	ELECT	10MF	20%	16V
C320	1-124-465-00	ELECT	0.47MF	20%	50V
C321	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C322	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C323	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C324	1-124-234-00	ELECT	22MF	20%	16V
C325	1-104-563-11	FILM CHIP	0.1MF	5%	16V
C326	1-104-563-11	FILM CHIP	0.1MF	5%	16V
C327	1-104-563-11	FILM CHIP	0.1MF	5%	16V
C328	1-126-157-11	ELECT	10MF	20%	16V
C329	1-126-157-11	ELECT	10MF	20%	16V
C330	1-126-157-11	ELECT	10MF	20%	16V
C331	1-126-301-11	ELECT	1MF	20%	50V
C332	1-124-584-00	ELECT	100MF	20%	10V
C333	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C334	1-137-491-11	FILM CHIP	0.1MF	5%	25V

E1

REF.NO.	PART NO.	DESCRIPTION			REMARK
C335	1-136-169-00	FILM	0.22MF	5%	50V
C336	1-126-301-11	ELECT	1MF	20%	50V
C337	1-126-301-11	ELECT	1MF	20%	50V
C338	1-124-584-00	ELECT	100MF	20%	10V
C339	1-126-801-11	ELECT	1MF	20%	50V
C340	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C341	1-126-157-11	ELECT	10MF	20%	16V
C342	1-124-465-00	ELECT	0.47MF	20%	50V
C343	1-124-589-11	ELECT	47MF	20%	16V
C344	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C346	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C348	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C350	1-126-301-11	ELECT	1MF	20%	50V
C351	1-163-002-11	CERAMIC CHIP	270PF	10%	50V
C352	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C353	1-126-163-11	ELECT	4.7MF	20%	50V
C355	1-124-465-00	ELECT	0.47MF	20%	50V
C356	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C357	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C360	1-137-491-11	FILM CHIP	0.1MF	5%	25V
C361	1-126-301-11	ELECT	1MF	20%	50V
C362	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C363	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C364	1-126-301-11	ELECT	1MF	20%	50V
C365	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
C366	1-124-257-00	ELECT	2.2MF	20%	50V
C367	1-126-157-11	ELECT	10MF	20%	16V
C368	1-124-234-00	ELECT	22MF	20%	16V
C369	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C370	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C371	1-126-803-11	ELECT	47MF	20%	16V
C372	1-124-589-11	ELECT	47MF	20%	16V
C373	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C378	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C379	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C380	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C381	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C382	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C383	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C384	1-163-095-00	CERAMIC CHIP	12PF	5%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D301	8-719-404-46	DIODE MA110	
D302	8-719-404-46	DIODE MA110	
D303	8-719-404-46	DIODE MA110	
D304	8-719-404-46	DIODE MA110	
D305	8-719-404-46	DIODE MA110	
D306	8-719-158-15	DIODE RD5.6SB	
D307	8-719-404-46	DIODE MA110	
D310	8-719-158-15	DIODE RD5.6SB	
D312	8-719-404-46	DIODE MA110	
D313	8-719-404-46	DIODE MA110	
D314	8-719-404-46	DIODE MA110	
D315	8-719-404-46	DIODE MA110	
D316	8-719-404-46	DIODE MA110	
D317	8-719-404-46	DIODE MA110	
D318	8-719-404-46	DIODE MA110	
D319	8-719-404-46	DIODE MA110	
D320	8-719-404-46	DIODE MA110	
D321	8-719-400-94	DIODE MA3130	

<DELAY LINE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
DL302	1-415-817-11	DELAY LINE	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
E1-24	*1-564-523-11	PLUG, CONNECTOR 8P	
E1-25	*1-564-521-11	PLUG, CONNECTOR 6P	
E1-26	*1-564-522-11	PLUG, CONNECTOR 7P	
E1-001	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC301	8-752-058-68	IC CXA1315M	
IC302	8-752-057-68	IC CXA1464AS	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L301	1-410-064-11	INDUCTOR	2.7MMH	
L307	1-410-944-31	INDUCTOR CHIP	15UH	
L308	1-410-946-31	INDUCTOR CHIP	22UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q301	8-729-925-79	TRANSISTOR IMX3	
Q302	8-729-925-79	TRANSISTOR IMX3	
Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q304	8-729-907-46	TRANSISTOR IMZ1	
Q305	8-729-925-79	TRANSISTOR IMX3	
Q306	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q307	8-729-903-10	TRANSISTOR FMW1	
Q309	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q310	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q311	8-729-403-27	TRANSISTOR XN4401	
Q312	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q314	8-729-403-27	TRANSISTOR XN4401	
Q315	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q316	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q317	8-729-216-22	TRANSISTOR 2SA1162-G	
Q321	8-729-925-79	TRANSISTOR IMX3	
Q322	8-729-216-22	TRANSISTOR 2SA1162-G	
Q323	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q324	8-729-216-22	TRANSISTOR 2SA1162-G	
Q325	8-729-216-22	TRANSISTOR 2SA1162-G	
Q326	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q327	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q328	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q333	8-729-925-79	TRANSISTOR IMX3	
Q334	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q335	8-729-907-46	TRANSISTOR IMZ1	
Q340	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q342	8-729-925-79	TRANSISTOR IMX3	
Q344	8-729-216-22	TRANSISTOR 2SA1162-G	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
R301	1-216-025-00	METAL GLAZE	100	5%	1/10W
R302	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R303	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R304	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R305	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R306	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R307	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R308	1-216-037-00	METAL GLAZE	330	5%	1/10W
R309	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R310	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W

E1

REF.NO.	PART NO.	DESCRIPTION				REMARK
R312	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R313	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R314	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R316	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R317	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R320	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R325	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R326	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R331	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R332	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R333	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R336	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R338	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R339	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R340	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R341	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R343	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R344	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R345	1-216-292-11	METAL GLAZE	8.2M	5%	1/8W	
R346	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R347	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R348	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R349	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R350	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R351	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R352	1-216-011-00	METAL GLAZE	27	5%	1/10W	
R353	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R354	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R355	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R356	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R357	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R358	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R359	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R360	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R361	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R362	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R363	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R364	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R365	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R366	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R367	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R368	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R369	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R370	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R371	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R372	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R373	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R374	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R375	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R376	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R377	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R378	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R379	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R380	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R381	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R382	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R383	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R384	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R385	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R386	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R387	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R388	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R389	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R390	1-216-033-00	METAL GLAZE	220	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R391	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R393	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R394	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R395	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R397	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R398	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R399	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1301	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1302	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1303	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1304	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1305	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1306	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1307	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1308	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1309	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1310	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1311	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1312	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1313	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1314	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1315	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1316	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1317	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1318	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1319	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1320	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1321	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1322	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1323	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1324	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1325	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1326	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1327	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1328	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1329	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1330	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1331	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1333	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R1342	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1346	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1347	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1348	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1350	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1352	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1353	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1354	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1355	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R1356	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1357	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1358	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1362	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1363	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1364	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1373	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1374	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1379	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1380	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1381	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1382	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1383	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1384	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1385	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1386	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1387	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1388	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1389	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1390	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1391	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1392	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1394	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1395	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1396	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R1399	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R5301	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R5302	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R5303	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R5304	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R5305	1-216-085-00	METAL GLAZE	33K	5%	1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X301	1-567-505-11	OSCILLATOR, CRYSTAL	

****

*A-1346-136-A E2 BOARD, COMPLETE
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C2302	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2303	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2310	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C2313	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C2314	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2315	1-126-157-11	ELECT	10MF	20%	16V	
C2316	1-126-157-11	ELECT	10MF	20%	16V	
C2317	1-126-157-11	ELECT	10MF	20%	16V	
C2318	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2320	1-124-589-11	ELECT	47MF	20%	16V	
C2321	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C2322	1-124-234-00	ELECT	22MF	20%	16V	
C2323	1-124-234-00	ELECT	22MF	20%	16V	
C2324	1-124-234-00	ELECT	22MF	20%	16V	
C2325	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2326	1-124-589-11	ELECT	47MF	20%	16V	
C2327	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C2328	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2329	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2331	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2332	1-124-234-00	ELECT	22MF	20%	16V	
C2333	1-124-234-00	ELECT	22MF	20%	16V	
C2334	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2335	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2336	1-126-163-11	ELECT	4.7MF	20%	16V	
C2337	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2338	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C2340	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C2345	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C2346	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2347	1-163-367-11	CERAMIC CHIP	39PF	5%	50V	
C2349	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C2350	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2351	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C2352	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C2353	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2354	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2357	1-126-301-11	ELECT	1MF	20%	50V	
C2360	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D2306	8-719-404-46	DIODE MA110	
D2307	8-719-948-98	DIODE FMN1	
D2308	8-719-948-98	DIODE FMN1	
D2309	8-719-404-46	DIODE MA110	
D2312	8-719-404-46	DIODE MA110	
D2313	8-719-404-46	DIODE MA110	
D2314	8-713-300-57	DIODE 1T33	
D2317	8-719-404-46	DIODE MA110	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
E2-25	*1-564-521-11	PLUG, CONNECTOR 6P	
E2-26	*1-564-522-11	PLUG, CONNECTOR 7P	
E2-46	*1-564-518-11	PLUG, CONNECTOR 3P	
E2-002	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC2301	8-759-066-52	IC PCA8510T/012-T	
IC2303	8-759-925-75	IC SN74HC05ANS	
IC2304	8-752-037-15	IC CXA1387S	
IC2306	8-759-011-65	IC MC74HC4053F	
IC2307	8-752-058-68	IC CXA1315M	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L2304	1-408-414-00	INDUCTOR	27UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q2301	8-729-903-10	TRANSISTOR FMW1	
Q2303	8-729-403-27	TRANSISTOR XN4401	
Q2304	8-729-925-79	TRANSISTOR IMX3	
Q2305	8-729-903-10	TRANSISTOR FMW1	
Q2306	8-729-403-27	TRANSISTOR XN4401	
Q2307	8-729-403-27	TRANSISTOR XN4401	
Q2308	8-729-403-27	TRANSISTOR XN4401	
Q2309	8-729-903-10	TRANSISTOR FMW1	
Q2310	8-729-403-27	TRANSISTOR XN4401	
Q2311	8-729-903-10	TRANSISTOR FMW1	
Q2312	8-729-403-27	TRANSISTOR XN4401	
Q2313	8-729-903-10	TRANSISTOR FMW1	
Q2314	8-729-403-27	TRANSISTOR XN4401	
Q2315	8-729-903-10	TRANSISTOR FMW1	
Q2317	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2318	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2319	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2320	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2321	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2322	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2324	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2326	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2327	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2330	8-729-903-10	TRANSISTOR FMW1	
Q2337	8-729-925-79	TRANSISTOR IMX3	
Q2338	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2339	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2340	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

E2

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q2341	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q2342	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q2345	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
		<RESISTOR>				
R2302	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2303	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2304	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2305	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2306	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R2307	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R2308	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R2309	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2310	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R2311	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2312	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2313	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R2314	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2315	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2317	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2318	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R2319	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2320	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2321	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2322	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2323	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2324	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2325	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2326	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2327	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2328	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2329	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2330	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2331	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2332	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2333	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2334	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2335	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2336	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2337	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2338	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2340	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2341	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2342	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2343	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2344	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2345	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2346	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2347	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R2350	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2351	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2352	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2353	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2354	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W	
R2355	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R2356	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R2357	1-216-670-11	METAL CHIP	6.2K	0.50%	1/10W	
R2359	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2360	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2361	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2362	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2363	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2364	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2365	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2366	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2367	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2368	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2371	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2374	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2375	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2376	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2377	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2378	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2379	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2380	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2381	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2382	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2384	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2385	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R2386	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2387	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2388	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R2390	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2393	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R2394	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2395	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R2397	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2399	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3301	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3302	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3303	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3304	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R3306	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R3307	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3308	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R3309	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3310	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3311	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3312	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3313	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R3314	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R3315	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3316	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3318	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R3319	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3320	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R3321	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R3323	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R3324	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3325	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3328	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3330	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3331	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3332	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3339	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3340	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3341	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R3342	1-216-670-11	METAL CHIP	6.2K	0.50%	1/10W	
R3343	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3344	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3350	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3351	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3353	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3354	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3361	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R3362	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3364	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3365	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3367	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3368	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R3369	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3370	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3371	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3374	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3392	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R3401	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R7312	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R7313	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R7314	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	

<CRYSTAL>

X2301	1-577-071-11	VIBRATOR, CERAMIC

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*A-1306-435-A M BOARD, COMPLETE
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<CAPACITOR>

C001	1-124-261-00	ELECT	10MF	20%	50V
C002	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C003	1-136-161-00	FILM	0.047MF	5%	50V
C004	1-126-301-11	ELECT	1MF	20%	50V
C005	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C014	1-124-910-11	ELECT	47MF	20%	50V
C015	1-124-464-11	ELECT	0.22MF	20%	50V
C017	1-124-589-11	ELECT	47MF	20%	16V
C018	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C019	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C020	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C021	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C029	1-163-249-11	CERAMIC CHIP	82PF	5%	50V
C030	1-163-249-11	CERAMIC CHIP	82PF	5%	50V
C034	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C035	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C036	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C041	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C042	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C045	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C047	1-124-261-00	ELECT	10MF	20%	50V
C048	1-124-261-00	ELECT	10MF	20%	50V
C049	1-124-261-00	ELECT	10MF	20%	50V
C055	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C064	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C065	1-124-257-00	ELECT	2.2MF	20%	50V

<DIODE>

D001	8-719-404-46	DIODE MA110
D002	8-719-404-46	DIODE MA110
D003	8-719-404-46	DIODE MA110
D004	8-719-404-46	DIODE MA110
D005	8-719-404-46	DIODE MA110
D006	8-719-404-46	DIODE MA110
D007	8-719-404-46	DIODE MA110
D008	8-719-404-46	DIODE MA110
D009	8-719-404-46	DIODE MA110
D010	8-713-300-57	DIODE 1T33
D011	8-719-404-46	DIODE MA110
D012	8-719-404-46	DIODE MA110
D014	8-719-404-46	DIODE MA110
D015	8-719-404-46	DIODE MA110

<IC>

IC001	8-759-194-83	IC TMC73C247-11
IC002	8-759-403-44	IC MN1280-S

<COIL>

L001	1-408-409-00	INDUCTOR	10UH
L002	1-410-476-11	INDUCTOR	33UH

<CONNECTOR>

M-39	*1-564-521-11	PLUG, CONNECTOR 6P
M-45	1-564-523-11	PLUG, CONNECTOR 8P
M-001	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P

<TRANSISTOR>

Q001	8-729-216-22	TRANSISTOR 2SA1162-G
Q002	8-729-216-22	TRANSISTOR 2SA1162-G
Q003	8-729-216-22	TRANSISTOR 2SA1162-G
Q004	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q005	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q006	8-729-216-22	TRANSISTOR 2SA1162-G
Q007	8-729-216-22	TRANSISTOR 2SA1162-G
Q008	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q009	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q010	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q011	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q012	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q013	8-729-216-22	TRANSISTOR 2SA1162-G
Q014	8-729-120-28	TRANSISTOR 2SC1623-L5L6

<RESISTOR>

R001	1-216-045-00	METAL GLAZE	680	5%	1/10W
R002	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R003	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R004	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R005	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R006	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R007	1-216-027-00	METAL GLAZE	120	5%	1/10W
R008	1-216-041-00	METAL GLAZE	470	5%	1/10W
R009	1-216-027-00	METAL GLAZE	120	5%	1/10W
R011	1-216-033-00	METAL GLAZE	220	5%	1/10W
R012	1-216-033-00	METAL GLAZE	220	5%	1/10W
R013	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R014	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R015	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R016	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R017	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R018	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R019	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R020	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R021	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R022	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R023	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R024	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R025	1-216-073-00	METAL GLAZE	10K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R026	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R027	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R028	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R029	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R030	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R031	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R032	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R033	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R034	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R035	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R036	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R037	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R038	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R039	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R040	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R041	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R042	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R043	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R044	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R045	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R046	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R047	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R048	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R049	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R050	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R051	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R052	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R053	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R054	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R055	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R056	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R057	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R058	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R059	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R060	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R063	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R064	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R065	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R066	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R067	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R068	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R069	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R070	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R071	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R072	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R073	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R074	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R075	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R076	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R077	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R078	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R079	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R080	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R081	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R082	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R083	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R084	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R085	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R086	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R087	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R088	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R089	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R090	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R091	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R092	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R093	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R094	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R095	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R096	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R097	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R098	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R099	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R100	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R101	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R102	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R103	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R104	1-216-033-00	METAL GLAZE	220	5%	1/10W	

<CRYSTAL>

X001	1-579-743-11	VIBRATOR, CRYSTAL	

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*A-1195-067-A P2 BOARD, COMPLETE
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<CAPACITOR>

C3001	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C3002	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C3003	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C3004	1-124-034-51	ELECT	33MF	20%	16V
C3005	1-124-034-51	ELECT	33MF	20%	16V
C3006	1-126-177-11	ELECT	100MF	20%	6.3V
C3007	1-126-177-11	ELECT	100MF	20%	6.3V
C3008	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C3009	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C3010	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C3011	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C3012	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C3013	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C3014	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C3015	1-130-483-00	MYLAR	0.01MF	5%	50V
C3016	1-126-177-11	ELECT	100MF	20%	6.3V
C3017	1-126-301-11	ELECT	1MF	20%	50V
C3018	1-130-477-00	MYLAR	0.0033MF	5%	50V
C3019	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C3020	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C3021	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C3022	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C3023	1-126-301-11	ELECT	1MF	20%	50V
C3024	1-126-177-11	ELECT	100MF	20%	6.3V
C3025	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3026	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C3027	1-124-034-51	ELECT	33MF	20%	16V
C3028	1-163-085-00	CERAMIC CHIP	2PF	0.25PF	50V
C3029	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C3030	1-124-034-51	ELECT	33MF	20%	16V
C3031	1-126-096-11	ELECT	10MF	20%	25V
C3032	1-130-479-00	MYLAR	0.0047MF	5%	50V
C3033	1-124-465-00	ELECT	0.47MF	20%	50V
C3034	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3035	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3036	1-124-034-51	ELECT	33MF	20%	16V
C3037	1-126-163-11	ELECT	4.7MF	20%	50V
C3038	1-124-034-51	ELECT	33MF	20%	16V
C3039	1-126-163-11	ELECT	4.7MF	20%	50V

P2

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3040	1-164-232-11	CERAMIC CHIP 0.01MF	10%		50V
C3041	1-124-034-51	ELECT 33MF	20%		16V
C3042	1-130-491-00	MYLAR 0.047MF	5%		50V
C3043	1-124-465-00	ELECT 0.47MF	20%		50V
C3044	1-164-232-11	CERAMIC CHIP 0.01MF	10%		50V
C3045	1-164-232-11	CERAMIC CHIP 0.01MF	10%		50V
C3046	1-126-177-11	ELECT 100MF	20%		6.3V
C3047	1-164-232-11	CERAMIC CHIP 0.01MF	10%		50V
C3049	1-164-232-11	CERAMIC CHIP 0.01MF	10%		50V
C3050	1-164-232-11	CERAMIC CHIP 0.01MF	10%		50V
C3051	1-124-034-51	ELECT 33MF	20%		16V
C3052	1-126-101-11	ELECT 100MF	20%		16V
C3054	1-124-261-00	ELECT 10MF	20%		50V
C3057	1-124-478-11	ELECT 100MF	20%		25V
C3058	1-124-478-11	ELECT 100MF	20%		25V
		<NETWORK>			
CP3001	1-236-176-11	NETWORK, RES, THICK FILM			
CP3002	1-236-176-11	NETWORK, RES, THICK FILM			
CP3003	1-236-176-11	NETWORK, RES, THICK FILM			
		<DIODE>			
D3002	8-713-300-57	DIODE 1T33			
D3003	8-713-300-57	DIODE 1T33			
D3004	8-719-404-46	DIODE MA110			
		<FILTER>			
FL3001	1-236-129-11	ENCAPSULATED COMPONENT			
FL3002	1-236-129-11	ENCAPSULATED COMPONENT			
FL3003	1-236-129-11	ENCAPSULATED COMPONENT			
FL3004	1-236-071-11	ENCAPSULATED COMPONENT			
FL3005	1-236-071-11	ENCAPSULATED COMPONENT			
FL3006	1-236-129-11	ENCAPSULATED COMPONENT			
FL3007	1-236-164-11	ENCAPSULATED COMPONENT			
FL3008	1-236-163-11	ENCAPSULATED COMPONENT			
FL3009	1-236-164-11	ENCAPSULATED COMPONENT			
FL3010	1-236-129-11	ENCAPSULATED COMPONENT			
FL3011	1-236-163-11	ENCAPSULATED COMPONENT			
FL3012	1-236-163-11	ENCAPSULATED COMPONENT			
FL3013	1-236-163-11	ENCAPSULATED COMPONENT			
FL3014	1-236-129-11	ENCAPSULATED COMPONENT			
		<IC>			
IC3001	8-759-032-11	IC MC74HC04AF			
IC3002	8-759-032-11	IC MC74HC04AF			
IC3003	8-752-332-83	IC CXD1220AQ			
IC3004	8-759-605-15	IC M5M4C500L-10			
IC3005	8-759-605-14	IC M52678P			
IC3006	8-759-605-15	IC M5M4C500L-10			
IC3007	8-759-011-65	IC MC74HC4053F			
IC3008	8-759-605-15	IC M5M4C500L-10			
IC3009	8-759-605-14	IC M52678P			
IC3010	8-759-112-06	IC UPC78N05H			
IC3011	8-759-049-49	IC UPC7893AHF			
		<JACK>			
J3001	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P			

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<COIL>			
L3001	1-410-470-11	INDUCTOR	10UH		
L3002	1-410-470-11	INDUCTOR	10UH		
L3003	1-410-470-11	INDUCTOR	10UH		
L3004	1-410-470-11	INDUCTOR	10UH		
L3005	1-408-420-00	INDUCTOR	82UH		
L3006	1-408-421-00	INDUCTOR	100UH		
L3007	1-410-434-21	INDUCTOR	180UH		
L3008	1-408-427-00	INDUCTOR	330UH		
		<CONNECTOR>			
P2-40	*1-564-519-11	PLUG, CONNECTOR 4P			
		<TRANSISTOR>			
Q3001	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3002	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3003	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3004	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3005	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3006	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3007	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3008	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3009	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3010	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3011	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3012	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3013	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3014	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3015	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		<RESISTOR>			
R3001	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3002	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3003	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3005	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R3006	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3007	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3008	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3009	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3010	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3011	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3012	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R3013	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3014	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R3015	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3016	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R3017	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R3018	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R3019	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3020	1-216-017-00	METAL GLAZE	47	5%	1/10W
R3021	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R3022	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3024	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3025	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3026	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3027	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R3028	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3029	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3030	1-216-043-00	METAL GLAZE	560	5%	1/10W
R3031	1-216-043-00	METAL GLAZE	560	5%	1/10W
R3032	1-216-077-00	METAL GLAZE	15K	5%	1/10W

P2 **X3**

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R3033	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3034	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3035	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3036	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3037	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R3038	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3039	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R3040	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3041	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3042	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3043	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3044	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3045	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3046	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3047	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3048	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3049	1-216-662-11	METAL CHIP	3K	0.50%	1/10W	
R3050	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3051	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R3052	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3054	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3055	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3056	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3057	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3058	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3059	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R3060	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3061	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R3062	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3063	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3064	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3065	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3066	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3067	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3068	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R3069	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3070	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R3071	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R3072	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3073	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3074	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3080⚠	1-216-358-91	METAL OXIDE	5.6	5%	1W	F

<VARIABLE RESISTOR>

RV3001	1-238-012-11	RES, ADJ, CARBON 1K
RV3002	1-238-012-11	RES, ADJ, CARBON 1K

<TRANSFORMER>

T3001	1-404-607-11	COIL
T3002	1-404-607-11	COIL

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*A-1394-446-A X3 BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C2501	1-124-477-11	ELECT	47MF	20%	16V
C2502	1-124-477-11	ELECT	47MF	20%	16V
C2505	1-124-638-11	ELECT	22MF	20%	6.3V
C2506	1-126-177-11	ELECT	100MF	20%	10V
C2507	1-126-163-11	ELECT	4.7MF	20%	16V
C2508	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C2509	1-126-163-11	ELECT	4.7MF	20%	50V
C2512	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2513	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C2514	1-126-163-11	ELECT	4.7MF	20%	16V
C2516	1-126-163-11	ELECT	4.7MF	20%	50V
C2517	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2518	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2519	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2520	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2521	1-163-088-00	CERAMIC CHIP	5PF	0.25PF	50V
C2522	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C2523	1-163-100-00	CERAMIC CHIP	20PF	5%	50V
C2524	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2525	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2526	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2527	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2528	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2529	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2532	1-126-163-11	ELECT	4.7MF	20%	16V
C2536	1-124-589-11	ELECT	47MF	20%	16V
C2537	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2540	1-126-163-11	ELECT	4.7MF	20%	16V
C2544	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2545	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2546	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2547	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2548	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2549	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2550	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2551	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2552	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2553	1-126-177-11	ELECT	100MF	20%	10V
C2554	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C2557	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2558	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2560	1-126-163-11	ELECT	4.7MF	20%	16V
C2561	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C2562	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
C2563	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C2566	1-126-163-11	ELECT	4.7MF	20%	16V
C2569	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C2570	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
C2571	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C2572	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C2573	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C2574	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
C2575	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2577	1-124-465-00	ELECT	0.47MF	20%	50V
C2578	1-124-465-00	ELECT	0.47MF	20%	50V
C2579	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
C2580	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C2581	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C2582	1-124-234-00	ELECT	22MF	20%	16V
C2583	1-124-589-11	ELECT	47MF	20%	16V
C2590	1-135-179-21	TANTAL. CHIP	2.2MF	20%	16V
C2591	1-135-179-21	TANTAL. CHIP	2.2MF	20%	16V
C2592	1-135-179-21	TANTAL. CHIP	2.2MF	20%	16V
C2593	1-135-179-21	TANTAL. CHIP	2.2MF	20%	16V

<DIODE>

D2501	8-719-404-46	DIODE MA110

<FERRITE BEAD>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FB2502	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB2504	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	

<FILTER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FL2501	1-236-164-11	ENCAPSULATED COMPONENT	
FL2503	1-236-164-11	ENCAPSULATED COMPONENT	
FL2505	1-236-164-11	ENCAPSULATED COMPONENT	
FL2506	1-236-129-11	ENCAPSULATED COMPONENT	
FL2507	1-236-129-11	ENCAPSULATED COMPONENT	
FL2508	1-236-129-11	ENCAPSULATED COMPONENT	
FL2509	1-236-129-11	ENCAPSULATED COMPONENT	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC2501	8-759-052-52	IC L78M05T-FA	
IC2502	8-759-031-31	IC MC33174M	
IC2503	8-752-344-45	IC CXD2555Q	
IC2504	8-752-343-18	IC CXD2704Q	
IC2506	8-759-031-31	IC MC33174M	
IC2507	8-752-344-45	IC CXD2555Q	
IC2508	8-752-844-48	IC CXP5068H-205Q	
IC2509	8-759-042-02	IC S-80743AL-A7-S	
IC2510	8-752-332-80	IC CXD1160AQ	
IC2511	8-759-932-21	IC MB81256-12PSZ	
IC2512	8-759-069-14	IC M51132L	
IC2513	8-759-100-96	IC UPC4558G2	

<JACK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J2501	1-573-966-11	PIN, CONNECTOR (PC BOARD) 36P	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L2501	1-410-204-31	INDUCTOR CHIP 10UH	
L2504	1-410-204-31	INDUCTOR CHIP 10UH	
L2505	1-410-196-11	INDUCTOR CHIP 2.2UH	
L2510	1-410-204-31	INDUCTOR CHIP 10UH	
L2511	1-410-204-31	INDUCTOR CHIP 10UH	
L2512	1-410-204-31	INDUCTOR CHIP 10UH	
L2513	1-410-204-31	INDUCTOR CHIP 10UH	
L2514	1-410-204-31	INDUCTOR CHIP 10UH	
L2515	1-410-204-31	INDUCTOR CHIP 10UH	
L2516	1-410-204-31	INDUCTOR CHIP 10UH	
L2517	1-410-204-31	INDUCTOR CHIP 10UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q2501	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R2501	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R2502	1-216-699-11	METAL CHIP 100K 0.50% 1/10W	
R2505	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R2506	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R2507	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R2508	1-216-699-11	METAL CHIP 100K 0.50% 1/10W	
R2509	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R2510	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R2511	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R2512	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R2513	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2518	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2519	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2520	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2521	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2522	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2531	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2532	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2533	1-216-681-11	METAL CHIP 18K 0.50% 1/10W	
R2534	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R2535	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R2536	1-216-687-11	METAL CHIP 33K 0.50% 1/10W	
R2537	1-216-685-11	METAL CHIP 27K 0.50% 1/10W	
R2538	1-216-681-11	METAL CHIP 18K 0.50% 1/10W	
R2539	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2540	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2541	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2542	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2543	1-216-681-11	METAL CHIP 18K 0.50% 1/10W	
R2544	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R2545	1-216-687-11	METAL CHIP 33K 0.50% 1/10W	
R2546	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R2547	1-216-685-11	METAL CHIP 27K 0.50% 1/10W	
R2548	1-216-681-11	METAL CHIP 18K 0.50% 1/10W	
R2549	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2550	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2551	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2552	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2557	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2559	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2560	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2561	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2562	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2563	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2564	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2565	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R2566	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2567	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2568	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2569	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2570	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2571	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2572	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2573	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2574	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2575	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2576	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2577	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2578	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2579	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2583	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2584	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2585	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2590	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R2591	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R2592	1-216-665-11	METAL CHIP 3.9K 0.50% 1/10W	
R2593	1-216-665-11	METAL CHIP 3.9K 0.50% 1/10W	
R2594	1-216-665-11	METAL CHIP 3.9K 0.50% 1/10W	
R2595	1-216-665-11	METAL CHIP 3.9K 0.50% 1/10W	
R2596	1-216-665-11	METAL CHIP 3.9K 0.50% 1/10W	
R2597	1-216-665-11	METAL CHIP 3.9K 0.50% 1/10W	

X3 **Y2**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2598	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2599	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2600	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2601	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2602	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2603	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2605	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R2606	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R2607	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R2608	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R2609	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2610	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2611	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2612	1-216-025-00	METAL GLAZE	100	5%	1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X2501	1-579-692-31	VIBRATOR, CRYSTAL	

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*A-1394-442-A Y2 BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C401	1-124-234-00	ELECT	22MF	20%	16V	
C424	1-126-301-11	ELECT	1MF	20%	50V	
C425	1-126-301-11	ELECT	1MF	20%	50V	
C426	1-126-301-11	ELECT	1MF	20%	50V	
C427	1-124-465-00	ELECT	0.47MF	20%	50V	
C428	1-126-163-11	ELECT	4.7MF	20%	50V	
C429	1-124-478-11	ELECT	100MF	20%	25V	
C430	1-124-261-00	ELECT	10MF	20%	50V	
C431	1-126-301-11	ELECT	1MF	20%	50V	
C432	1-126-301-11	ELECT	1MF	20%	50V	
C433	1-131-347-00	TANTALUM	1MF	20%	16V	
C434	1-126-301-11	ELECT	1MF	20%	50V	
C435	1-130-994-11	FILM	0.033MF	5%	50V	
C436	1-126-301-11	ELECT	1MF	20%	50V	
C437	1-137-372-11	FILM	0.022MF	5%	50V	
C438	1-126-301-11	ELECT	1MF	20%	50V	
C439	1-124-034-51	ELECT	33MF	20%	16V	
C440	1-126-301-11	ELECT	1MF	20%	50V	
C441	1-126-301-11	ELECT	1MF	20%	50V	
C442	1-124-261-00	ELECT	10MF	20%	50V	
C443	1-124-589-11	ELECT	47MF	20%	16V	
C444	1-126-163-11	ELECT	4.7MF	20%	50V	
C445	1-126-163-11	ELECT	4.7MF	20%	50V	
C446	1-124-234-00	ELECT	22MF	20%	16V	
C447	1-126-301-11	ELECT	1MF	20%	50V	
C448	1-136-170-00	FILM	0.27MF	5%	50V	
C449	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C450	1-137-366-11	FILM	0.0022MF	5%	50V	
C451	1-124-261-00	ELECT	10MF	20%	50V	
C452	1-124-261-00	ELECT	10MF	20%	50V	
C453	1-137-366-11	FILM	0.0022MF	5%	50V	
C454	1-131-368-00	TANTALUM	3.3MF	10%	16V	
C455	1-131-347-00	TANTALUM	1MF	20%	16V	
C456	1-136-171-00	FILM	0.33MF	5%	50V	
C457	1-136-175-00	FILM	0.68MF	5%	50V	
C458	1-126-101-11	ELECT	100MF	20%	16V	
C459	1-126-101-11	ELECT	100MF	20%	16V	
C460	1-126-101-11	ELECT	100MF	20%	16V	
C461	1-124-499-11	ELECT	1MF	20%	50V	
C462	1-124-499-11	ELECT	1MF	20%	50V	
C465	1-130-485-00	MYLAR	0.015MF	5%	50V	
C466	1-130-485-00	MYLAR	0.015MF	5%	50V	
C467	1-136-169-00	FILM	0.22MF	5%	50V	
C468	1-136-169-00	FILM	0.22MF	5%	50V	
C469	1-126-157-11	ELECT	10MF	20%	16V	
C470	1-126-157-11	ELECT	10MF	20%	16V	
C471	1-124-589-11	ELECT	47MF	20%	16V	
C472	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C473	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C474	1-124-234-00	ELECT	22MF	20%	16V	
C475	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C476	1-124-234-00	ELECT	22MF	20%	16V	
C477	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C478	1-124-478-11	ELECT	100MF	20%	25V	
C479	1-126-163-11	ELECT	4.7MF	20%	50V	
C480	1-124-768-11	ELECT	4.7MF	20%	50V	
C481	1-124-768-11	ELECT	4.7MF	20%	50V	
C482	1-126-163-11	ELECT	4.7MF	20%	50V	
C483	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C484	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C485	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C487	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C488	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D405	8-719-107-13	DIODE RD18M-B1	
D406	8-719-107-13	DIODE RD18M-B1	
D407	8-719-107-13	DIODE RD18M-B1	
D408	8-719-105-83	DIODE RD5.1M-B3	
D409	8-719-981-50	DIODE RB-100A	
D410	8-719-981-50	DIODE RB-100A	
D413	8-719-158-19	DIODE RD6.2SB	
D414	8-719-158-55	DIODE RD15SB	
D415	8-719-158-55	DIODE RD15SB	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC403	8-759-996-43	IC RC4558PS	
IC404	8-759-067-24	IC 24C04AI/P	
IC406	8-752-037-24	IC CXA1264AS	
IC407	8-759-245-75	IC TA8184P	
IC408	8-752-057-18	IC CXA1315P	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q404	8-729-216-22	TRANSISTOR 2SA1162-G	
Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
Q409	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q410	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R447	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R453	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R464	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R465	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R466	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R467	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R468	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R469	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R470	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R471	1-216-033-00	METAL GLAZE	220	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R472	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R473	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R474	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R475	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R476	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R477	1-216-676-11	METAL CHIP	11K	0.50%	1/10W	
R478	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R479	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R480	1-216-676-11	METAL CHIP	11K	0.50%	1/10W	
R481	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R482	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R483	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R485	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R486	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R488	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R494	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R495	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R496	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R497	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R498	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R499	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R500	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R501	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R502	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R503	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R504	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R507	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R510	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R512	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R513	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R515	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R517	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R518	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R519	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R521	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R522	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R523	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R524	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R525	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R526	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R527	1-218-753-11	METAL CHIP	110K	0.50%	1/10W	
R528	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R529	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R531	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R532	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R533	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R535	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R536	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R537	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R538	1-218-753-11	METAL CHIP	110K	0.50%	1/10W	
R539	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R540	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R541	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R542	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R543	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R546	1-216-682-11	METAL CHIP	20K	0.50%	1/10W	
R547	1-216-682-11	METAL CHIP	20K	0.50%	1/10W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Y2-401	1-573-966-11	PIN, CONNECTOR (PC BOARD) 36P	

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*A-1316-178-A G BOARD, COMPLETE
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	3-701-754-00	PLATE, INSULATING	
	4-382-854-11	SCREW (M3X10), P, SW (+)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C601	1-161-830-00	CERAMIC	4700PF	10%	500V	
C602	1-130-317-00	FILM	0.068MF	5%	100V	
C603	1-124-634-11	ELECT	1MF	20%	250V	
C605	1-164-143-11	CERAMIC	0.001MF	10%	1KV	
C606	1-124-563-11	ELECT	2200MF	20%	25V	
C607	1-124-563-11	ELECT	2200MF	20%	25V	
C608	1-128-484-11	ELECT	100MF	20%	200V	
C609	1-137-141-11	FILM	0.082MF	3%	600V	
C612	1-124-962-11	ELECT	2200MF	20%	25V	
C614	1-104-966-11	ELECT	10MF	0	200V	
C615	1-124-798-11	ELECT	1MF	20%	160V	
C616	1-124-557-11	ELECT	1000MF	20%	25V	
C617	1-164-143-11	CERAMIC	0.001MF	10%	1KV	
C618	1-136-853-11	FILM	0.56MF	5%	200V	
C619	1-164-735-11	CAP, CERAMIC	1500PF			
C620	1-136-721-21	FILM	1.5MF	10%	400V	
C621	1-164-143-11	CERAMIC	0.001MF	10%	1KV	
C622	1-136-853-11	FILM	0.56MF	5%	200V	
C623	1-137-087-11	FILM	0.068MF	3%	0	
C624	1-126-771-11	ELECT	100MF	20%	160V	
C625	1-126-183-11	ELECT	1000MF	20%	16V	
C626	1-126-373-11	ELECT	470MF	20%	10V	
C628	1-161-830-00	CERAMIC	4700PF	10%	500V	
C631	1-126-803-11	ELECT	47MF	20%	50V	
C632	1-124-903-11	ELECT	1MF	20%	50V	
C633	1-130-483-00	MYLAR	0.01MF	5%	50V	
C634	1-126-803-11	ELECT	47MF	20%	16V	
C637	⚠1-136-311-51	FILM	0.47MF	20%	125V	
C638	⚠1-161-743-12	CERAMIC	0.0047MF		400V	
C639	⚠1-125-692-11	ELECT(BLOCK)	820MF	20%	200V	
C640	⚠1-136-311-51	FILM	0.47MF	20%	125V	
C641	1-126-101-11	ELECT	100MF	20%	16V	
C642	⚠1-161-743-12	CERAMIC	0.0047MF		400V	
C644	1-126-104-11	ELECT	470MF	20%	35V	
C646	1-124-907-11	ELECT	10MF	20%	50V	
C647	⚠1-164-486-51	CERAMIC	0.0033MF	20%	400V	
C648	⚠1-125-692-11	ELECT(BLOCK)	820MF	20%	200V	
C649	⚠1-164-486-51	CERAMIC	0.0033MF	20%	400V	
C650	⚠1-161-743-12	CERAMIC	0.0047MF		400V	
C660	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C661	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C662	1-124-910-11	ELECT	47MF	20%	35V	
C663	1-126-946-11	ELECT	6800MF	20%	16V	
C664	1-126-946-11	ELECT	6800MF	20%	16V	
C670	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C671	1-126-101-11	ELECT	100MF	20%	16V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D602	8-719-979-58	DIODE EGP10D	
D603	8-719-500-67	DIODE D5KC40H	
D604	8-719-510-09	DIODE D10SC6M	
D605	8-719-988-31	DIODE D10SC6MR	
D607	8-719-025-81	DIODE S3V10SB	
D608	8-719-109-85	DIODE RD5.1ESB2	

G

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D609	8-719-109-84	DIODE RD5.1ESB1	
D610	8-719-979-58	DIODE EGP10D	
D611	8-719-979-58	DIODE EGP10D	
D613	8-719-300-33	DIODE RU-3AM	
D614	8-719-979-58	DIODE EGP10D	
D615	8-719-975-76	DIODE SB140	
D616	8-719-025-81	DIODE S3V10SB	
D617	8-719-110-02	DIODE RD7.5ESB1	
D618	8-719-911-19	DIODE 1SS119	
D619	8-719-975-76	DIODE SB140	
D621	8-719-908-03	DIODE GP08D	
D622	8-719-908-03	DIODE GP08D	
D623	8-719-110-63	DIODE RD24ESB3	
D624	8-719-109-89	DIODE RD5.6ESB2	
D626	8-719-908-03	DIODE GP08D	
D628	8-719-110-49	DIODE RD18ESB2	
D629	8-719-911-19	DIODE 1SS119	
D631	8-719-911-19	DIODE 1SS119	
D632	8-719-511-40	DIODE S1VB40	
D633	⚠8-719-505-60	DIODE S5VB60	
D634	8-719-911-19	DIODE 1SS119	
D636	8-719-109-85	DIODE RD5.1ESB2	
D638	8-719-911-19	DIODE 1SS119	
D650	8-719-160-81	DIODE RD27FB2	

<FUSE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
F601	⚠1-532-748-11	FUSE, GLASS TUBE 6.3A/125V	
	1-533-223-11	CLIP, FUSE; F601	

<FERRITE BEAD>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FB602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB606	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB607	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB608	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB630	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB631	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
G-1	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
G-2	*1-564-512-11	PLUG, CONNECTOR 9P	
G-4	*1-564-511-51	PLUG, CONNECTOR 8P	
G-5	*1-564-508-11	PLUG, CONNECTOR 5P	
G-7	*1-564-507-11	PLUG, CONNECTOR 4P	
G-8	*1-580-843-11	PIN, CONNECTOR (POWER)	
G-9	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
G-10	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
G-11	*1-564-511-71	PLUG, CONNECTOR 8P	
G-12	1-564-505-11	PLUG, CONNECTOR 2P	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC601	⚠8-749-921-89	IC SE115N	
IC602	8-759-231-58	IC TA7812S	

<JUMPER COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
JW76	1-408-421-00	INDUCTOR 100UH	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L602	1-459-862-11	COIL, CHOKE 90UH	
L604	1-408-404-00	INDUCTOR 3.9UH	
L605	1-412-526-11	INDUCTOR 12UH	
L607	1-408-404-00	INDUCTOR 3.9UH	
L611	1-412-546-41	INDUCTOR 560UH	
L612	1-412-540-31	INDUCTOR 180UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q603	8-729-011-15	TRANSISTOR 2SC4582NP	
Q604	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q607	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q608	8-729-326-11	TRANSISTOR 2SC2611	
Q609	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q610	8-729-820-82	TRANSISTOR 2SA1208-S	
Q611	8-729-820-82	TRANSISTOR 2SA1208-S	
Q612	8-729-386-12	TRANSISTOR 2SB861-C	
Q613	8-729-209-15	TRANSISTOR 2SD2012	
Q614	8-729-011-15	TRANSISTOR 2SC4582NP	
Q615	8-729-820-82	TRANSISTOR 2SA1208-S	
Q616	8-729-017-05	TRANSISTOR 2SA1837	
Q618	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q620	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q621	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q623	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q629	8-729-378-84	TRANSISTOR 2SD788-5	
Q630	8-729-255-12	TRANSISTOR 2SC2551-0	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R604	1-202-933-61	FUSIBLE 0.1 10% 1/2W	F
R605	1-249-428-11	CARBON 8.2K 5% 1/4W	
R606	1-214-919-00	METAL 180K 1% 1/2W	
R609	1-249-434-11	CARBON 27K 5% 1/4W	F
R610	1-215-469-00	METAL 100K 1% 1/4W	
R611	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R612	1-202-883-11	SOLID 680K 20% 1/2W	
R613	⚠1-216-386-91	METAL OXIDE 0.56 5% 3W	F
R614	1-249-418-11	CARBON 1.2K 5% 1/4W	
R615	1-215-438-00	METAL 5.1K 1% 1/4W	
R616	1-215-436-00	METAL 4.3K 1% 1/4W	
R617	⚠1-216-356-91	METAL OXIDE 3.9 5% 1W	F
R618	1-249-418-11	CARBON 1.2K 5% 1/4W	
R619	⚠1-216-444-91	METAL OXIDE 82K 5% 1W	F
R620	1-249-418-11	CARBON 1.2K 5% 1/4W	F
R621	1-247-691-11	CARBON 18 5% 1/4W	F
R622	1-249-424-11	CARBON 3.9K 5% 1/4W	F
R623	1-249-417-11	CARBON 1K 5% 1/4W	
R624	1-214-780-00	METAL 130K 1% 1/4W	
R625	⚠1-216-386-91	METAL OXIDE 0.56 5% 3W	F
R626	⚠1-216-356-91	METAL OXIDE 3.9 5% 1W	F
R627	1-202-883-11	SOLID 680K 20% 1/2W	
R628	1-249-410-11	CARBON 270 5% 1/4W	F
R629	⚠1-217-249-11	WIREWOUND 1 10% 3W	F
R631	1-249-417-11	CARBON 1K 5% 1/4W	F
R632	1-214-913-00	METAL 100K 1% 1/2W	
R633	1-249-429-11	CARBON 10K 5% 1/4W	
R634	1-249-441-11	CARBON 100K 5% 1/4W	
R638	1-247-807-31	CARBON 100 5% 1/4W	F
R639	1-247-807-31	CARBON 100 5% 1/4W	F
R640	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R641	1-249-429-11	CARBON 10K 5% 1/4W	
R642	1-215-421-00	METAL 1K 1% 1/4W	
R643	1-260-123-11	CARBON 100K 5% 1/2W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R644	1-249-415-11	CARBON	680	5%	1/4W	
R645	1-249-417-11	CARBON	1K	5%	1/4W	
R649	1-249-424-11	CARBON	3.9K	5%	1/4W	
R650	1-249-377-11	CARBON	0.47	5%	1/4W	F
R651	1-215-429-00	METAL	2.2K	1%	1/4W	
☒R652	⚠	METAL			1/4W	
R654	1-215-429-00	METAL	2.2K	1%	1/4W	
R655	1-249-426-11	CARBON	5.6K	5%	1/4W	
R656	1-215-454-00	METAL	24K	1%	1/4W	
R657	⚠1-216-386-91	METAL OXIDE	0.56	5%	3W	F
R660	1-249-413-11	CARBON	470	5%	1/4W	
R661	⚠1-202-884-91	SOLID	820K	20%	1/2W	
R662	⚠1-205-900-11	WIREWOUND	1.2	5%	15W	
R663	⚠1-215-904-91	METAL OXIDE	100K	5%	2W	F
R666	1-249-377-11	CARBON	0.47	5%	1/4W	F
R667	⚠1-202-888-91	SOLID	2.2M	20%	1/2W	
R668	⚠1-215-904-91	METAL OXIDE	100K	5%	2W	F
R669	1-249-377-11	CARBON	0.47	5%	1/4W	F
R675	1-249-377-11	CARBON	0.47	5%	1/4W	F
R687	1-249-417-11	CARBON	1K	5%	1/4W	F
R689	1-247-742-11	CARBON	180	5%	1/2W	F
R691	1-249-421-11	CARBON	2.2K	5%	1/4W	
R694	1-249-421-11	CARBON	2.2K	5%	1/4W	
R697	1-249-382-11	CARBON	1.2	5%	1/4W	F
R698	⚠1-216-386-91	METAL OXIDE	0.56	5%	3W	F

<RELAY>

RY601	⚠1-515-805-21	RELAY, POWER
RY602	⚠1-515-805-21	RELAY, POWER

<TRANSFORMER>

T601	⚠1-450-791-12	TRANSFORMER, POWER ISOLATION
T603	⚠1-424-020-11	PRT
T604	⚠1-450-149-11	TRANSFORMER, HEATER
T605	⚠1-424-023-12	TRANSFORMER, LINE FILTER
T606	⚠1-421-372-21	TRANSFORMER, FERRITE (LFT)
T608	⚠1-423-665-11	TRANSFORMER, POWER

<VARISTOR>

VDR601	⚠1-809-786-11	VARISTOR

****

*A-1331-259-A CR BOARD, COMPLETE
****

<CAPACITOR>

C701	1-162-115-00	CERAMIC	330PF	10%	2KV
C702	1-123-948-00	ELECT	22MF	20%	250V
C703	1-102-050-00	CERAMIC	0.01MF		500V
C704	1-162-115-00	CERAMIC	330PF	10%	2KV
C705	1-130-479-00	MYLAR	0.0047MF	5%	50V
C706	1-101-006-00	CERAMIC	0.047MF		50V
C707	1-101-006-00	CERAMIC	0.047MF		50V
C709	1-124-120-11	ELECT	220MF	20%	16V
C710	1-124-120-11	ELECT	220MF	20%	16V
C711	1-102-114-00	CERAMIC	470PF	10%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
CR1	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CR3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
CR4	1-564-511-11	PLUG, CONNECTOR 8P				
CR15	*1-564-508-11	PLUG, CONNECTOR 5P				

<SOCKET>

CRT701	⚠1-251-026-11	SOCKET, PICTURE TUBE

<DIODE>

D701	8-719-911-19	DIODE 1SS119
D702	8-719-911-19	DIODE 1SS119
D703	8-719-911-19	DIODE 1SS119
D704	8-719-911-19	DIODE 1SS119
D705	8-719-911-19	DIODE 1SS119
D706	8-719-911-19	DIODE 1SS119
D707	8-719-110-36	DIODE RD13ESB2

<COIL>

L701	1-408-429-00	INDUCTOR	470UH			
L702	1-249-470-11	CARBON	0.47	5%	1/2W	F
L704	1-408-413-00	INDUCTOR	22UH			

<NEON LAMP>

NL701	1-519-108-99	LAMP, NEON
NL702	1-519-108-99	LAMP, NEON

<TRANSISTOR>

Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q703	8-729-119-80	TRANSISTOR 2SC2688-LK
	4-373-933-01	SHEET (TRANSISTOR), BN; Q703
	4-382-854-11	SCREW (M3X10), P, SW (+); Q703
Q704	8-729-255-12	TRANSISTOR 2SC2551-0
Q705	8-729-200-17	TRANSISTOR 2SA1091-0
Q706	8-729-200-17	TRANSISTOR 2SA1091-0

<RESISTOR>

R701	1-202-847-00	SOLID	560K	20%	1/2W	
R702	1-202-814-11	SOLID	33K	20%	1/2W	
R703	1-202-818-00	SOLID	1K	20%	1/2W	
R704	1-202-842-11	SOLID	220K	20%	1/2W	
R705	1-202-828-11	SOLID	6.8K	20%	1/2W	
R706	1-202-561-00	SOLID	330	20%	1/2W	
R707	⚠1-216-510-51	METAL OXIDE	8.2K	5%	5W	F
R708	1-247-807-31	CARBON	100	5%	1/4W	F
R709	1-247-807-31	CARBON	100	5%	1/4W	F
R710	⚠1-215-927-91	METAL OXIDE	47K	5%	3W	F
R711	1-247-807-31	CARBON	100	5%	1/4W	F
R712	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R714	1-249-401-11	CARBON	47	5%	1/4W	
R716	1-247-807-31	CARBON	100	5%	1/4W	
R717	1-249-403-11	CARBON	68	5%	1/4W	
R718	1-249-412-11	CARBON	390	5%	1/4W	
R719	1-249-410-11	CARBON	270	5%	1/4W	
R720	1-247-807-31	CARBON	100	5%	1/4W	
R721	1-249-409-11	CARBON	220	5%	1/4W	
R722	1-215-423-00	METAL	1.2K	1%	1/4W	
R723	1-249-410-11	CARBON	270	5%	1/4W	
R724	1-215-429-00	METAL	2.2K	1%	1/4W	

- The components identified by ☒ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- ✱ : Selected to yield optimum performance.

CR **CG** **CB**

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<SPARK GAP>				
SG701	1-519-422-11	GAP, SPARK				
SG702	1-519-422-11	GAP, SPARK				
************	************	************************	************	******	******	******
	*A-1331-260-A	CG BOARD, COMPLETE ******************				
	4-373-933-01	SHEET (TRANSISTOR), BN				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		<CAPACITOR>				
C731	1-162-115-00	CERAMIC	330PF	10%	2KV	
C732	1-123-948-00	ELECT	22MF	20%	250V	
C733	1-102-050-00	CERAMIC	0.01MF		500V	
C734	1-162-115-00	CERAMIC	330PF	10%	2KV	
C735	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C736	1-101-006-00	CERAMIC	0.047MF		50V	
C737	1-101-006-00	CERAMIC	0.047MF		50V	
C739	1-124-120-11	ELECT	220MF	20%	16V	
C740	1-124-120-11	ELECT	220MF	20%	16V	
C741	1-102-114-00	CERAMIC	470PF	10%	50V	
		<CONNECTOR>				
CG1	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CG3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
CG16	*1-564-508-11	PLUG, CONNECTOR 5P				
		<SOCKET>				
CRT731	⚠1-251-026-11	SOCKET, PICTURE TUBE				
		<DIODE>				
D731	8-719-911-19	DIODE 1SS119				
D732	8-719-911-19	DIODE 1SS119				
D733	8-719-911-19	DIODE 1SS119				
D734	8-719-911-19	DIODE 1SS119				
D735	8-719-911-19	DIODE 1SS119				
D736	8-719-911-19	DIODE 1SS119				
D737	8-719-911-19	DIODE 1SS119				
		<COIL>				
L731	1-408-429-00	INDUCTOR	470UH			
L732	1-249-470-11	CARBON	0.47	5%	1/2W	F
L734	1-408-413-00	INDUCTOR	22UH			
		<NEON LAMP>				
NL731	1-519-108-99	LAMP, NEON				
NL732	1-519-108-99	LAMP, NEON				
		<TRANSISTOR>				
Q731	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q732	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q733	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q734	8-729-255-12	TRANSISTOR 2SC2551-0				
Q735	8-729-200-17	TRANSISTOR 2SA1091-0				

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q736	8-729-200-17	TRANSISTOR 2SA1091-0				
		<RESISTOR>				
R731	1-202-847-00	SOLID	560K	20%	1/2W	
R732	1-202-814-11	SOLID	33K	20%	1/2W	
R733	1-202-818-00	SOLID	1K	20%	1/2W	
R734	1-202-842-11	SOLID	220K	20%	1/2W	
R735	1-202-828-11	SOLID	6.8K	20%	1/2W	
R736	1-202-561-00	SOLID	330	20%	1/2W	
R737	⚠1-216-510-51	METAL OXIDE	8.2K	5%	5W	F
R738	1-247-807-31	CARBON	100	5%	1/4W	F
R739	1-247-807-31	CARBON	100	5%	1/4W	F
R740	⚠1-215-927-91	METAL OXIDE	47K	5%	3W	F
R741	1-247-807-31	CARBON	100	5%	1/4W	F
R742	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R744	1-249-401-11	CARBON	47	5%	1/4W	
R745	1-215-455-00	METAL	27K	1%	1/4W	
R746	1-247-807-31	CARBON	100	5%	1/4W	
R747	1-249-403-11	CARBON	68	5%	1/4W	
R748	1-249-412-11	CARBON	390	5%	1/4W	
R749	1-249-410-11	CARBON	270	5%	1/4W	
R750	1-247-807-31	CARBON	100	5%	1/4W	
R751	1-249-409-11	CARBON	220	5%	1/4W	
R752	1-215-423-00	METAL	1.2K	1%	1/4W	
R754	1-215-429-00	METAL	2.2K	1%	1/4W	
		<SPARK GAP>				
SG731	1-519-422-11	GAP, SPARK				
SG732	1-519-422-11	GAP, SPARK				
************	************	************************	************	******	******	******
	*A-1331-261-A	CB BOARD, COMPLETE ******************				
	4-373-933-01	SHEET (TRANSISTOR), BN				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		<CAPACITOR>				
C761	1-162-115-00	CERAMIC	330PF	10%	2KV	
C762	1-123-948-00	ELECT	22MF	20%	250V	
C763	1-102-050-00	CERAMIC	0.01MF		500V	
C764	1-162-115-00	CERAMIC	330PF	10%	2KV	
C765	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C766	1-101-006-00	CERAMIC	0.047MF		50V	
C767	1-101-006-00	CERAMIC	0.047MF		50V	
C769	1-124-120-11	ELECT	220MF	20%	16V	
C770	1-124-120-11	ELECT	220MF	20%	16V	
C771	1-102-114-00	CERAMIC	470PF	10%	50V	
		<CONNECTOR>				
CB1	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CB3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
CB4	1-564-511-11	PLUG, CONNECTOR 8P				
CB5	1-564-511-11	PLUG, CONNECTOR 8P				
CB17	*1-564-508-11	PLUG, CONNECTOR 5P				
		<SOCKET>				
CRT761	⚠1-251-026-11	SOCKET, PICTURE TUBE				

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Replace only with part number specified.

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<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D761	8-719-911-19	DIODE 1SS119	
D762	8-719-911-19	DIODE 1SS119	
D763	8-719-911-19	DIODE 1SS119	
D764	8-719-911-19	DIODE 1SS119	
D765	8-719-911-19	DIODE 1SS119	
D766	8-719-911-19	DIODE 1SS119	
D768	8-719-911-19	DIODE 1SS119	
D769	8-719-109-81	DIODE RD4.7ESB2	

<COIL>

REF.NO.	PART NO.	DESCRIPTION				REMARK
L761	1-408-429-00	INDUCTOR	470UH			
L762	1-249-470-11	CARBON	0.47	5%	1/2W	F
L764	1-408-413-00	INDUCTOR	22UH			

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL761	1-519-108-99	LAMP, NEON	
NL762	1-519-108-99	LAMP, NEON	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q761	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q762	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q763	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q764	8-729-255-12	TRANSISTOR 2SC2551-0	
Q765	8-729-200-17	TRANSISTOR 2SA1091-0	
Q766	8-729-200-17	TRANSISTOR 2SA1091-0	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R761	1-202-847-00	SOLID	560K	20%	1/2W	
R762	1-202-814-11	SOLID	33K	20%	1/2W	
R763	1-202-818-00	SOLID	1K	20%	1/2W	
R764	1-202-842-11	SOLID	220K	20%	1/2W	
R765	1-202-828-11	SOLID	6.8K	20%	1/2W	
R766	1-202-561-00	SOLID	330	20%	1/2W	
R767 ⚠	1-216-510-51	METAL OXIDE	8.2K	5%	5W	F
R768	1-247-807-31	CARBON	100	5%	1/4W	F
R769	1-247-807-31	CARBON	100	5%	1/4W	F
R770 ⚠	1-215-927-91	METAL OXIDE	47K	5%	3W	F
R771	1-247-807-31	CARBON	100	5%	1/4W	F
R772	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R773	1-249-413-11	CARBON	470	5%	1/4W	
R774	1-249-401-11	CARBON	47	5%	1/4W	
R776	1-247-807-31	CARBON	100	5%	1/4W	
R777	1-249-403-11	CARBON	68	5%	1/4W	
R778	1-249-412-11	CARBON	390	5%	1/4W	
R779	1-249-415-11	CARBON	680	5%	1/4W	
R780	1-247-807-31	CARBON	100	5%	1/4W	
R781	1-249-409-11	CARBON	220	5%	1/4W	
R782	1-215-423-00	METAL	1.2K	1%	1/4W	
R783	1-215-433-00	METAL	3.3K	1%	1/4W	
R784	1-215-429-00	METAL	2.2K	1%	1/4W	
R785	1-215-418-00	METAL	750	1%	1/4W	

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SG761	1-519-422-11	GAP, SPARK	
SG762	1-519-422-11	GAP, SPARK	

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*A-1341-726-A D BOARD, COMPLETE
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4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C901	1-126-320-11	ELECT	10MF	20%	16V	
C902	1-124-477-11	ELECT	47MF	20%	16V	
C903	1-130-471-00	MYLAR	0.001MF	5%	50V	
C904	1-130-471-00	MYLAR	0.001MF	5%	50V	
C905	1-124-477-11	ELECT	47MF	20%	16V	
C906	1-126-233-11	ELECT	22MF	20%	50V	
C907	1-126-101-11	ELECT	100MF	20%	16V	
C908	1-124-907-11	ELECT	10MF	20%	50V	
C910	1-130-483-00	MYLAR	0.01MF	5%	50V	
C911	1-131-341-00	TANTALUM	0.1MF	20%	16V	
C912	1-124-903-11	ELECT	1MF	20%	50V	
C913	1-126-233-11	ELECT	22MF	20%	50V	
C914	1-126-803-11	ELECT	47MF	20%	16V	
C915	1-124-927-11	ELECT	4.7MF	20%	50V	
C916	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C917	1-130-471-00	MYLAR	0.001MF	5%	50V	
C918	1-102-963-00	CERAMIC	33PF	5%	50V	
C919	1-102-963-00	CERAMIC	33PF	5%	50V	
C920	1-102-963-00	CERAMIC	33PF	5%	50V	
C921	1-102-963-00	CERAMIC	33PF	5%	50V	
C922	1-102-963-00	CERAMIC	33PF	5%	50V	
C923	1-102-963-00	CERAMIC	33PF	5%	50V	
C931	1-102-973-00	CERAMIC	100PF	5%	50V	
C932	1-124-903-11	ELECT	1MF	20%	50V	
C933	1-126-233-11	ELECT	22MF	20%	25V	
C934	1-126-233-11	ELECT	22MF	20%	25V	
C935	1-126-233-11	ELECT	22MF	20%	25V	
C936	1-126-233-11	ELECT	22MF	20%	25V	
C937	1-126-233-11	ELECT	22MF	20%	25V	
C938	1-126-233-11	ELECT	22MF	20%	25V	
C939	1-126-233-11	ELECT	22MF	20%	25V	
C940	1-126-233-11	ELECT	22MF	20%	25V	
C941	1-102-123-00	CERAMIC	0.0033MF	10%	50V	
C942	1-102-123-00	CERAMIC	0.0033MF	10%	50V	
C943	1-102-123-00	CERAMIC	0.0033MF	10%	50V	
C1701	1-124-907-11	ELECT	10MF	20%	50V	
C1702	1-124-907-11	ELECT	10MF	20%	50V	
C1703	1-124-907-11	ELECT	10MF	20%	50V	
C1704	1-124-667-11	ELECT	10MF	20%	50V	
C1705	1-102-963-00	CERAMIC	33PF	5%	50V	
C1706	1-102-963-00	CERAMIC	33PF	5%	50V	
C1707	1-102-963-00	CERAMIC	33PF	5%	50V	
C1708	1-102-963-00	CERAMIC	33PF	5%	50V	
C1709	1-102-963-00	CERAMIC	33PF	5%	50V	
C1710	1-102-963-00	CERAMIC	33PF	5%	50V	
C1711	1-126-233-11	ELECT	22MF	20%	50V	
C1712	1-126-233-11	ELECT	22MF	20%	25V	
C1713	1-131-353-00	TANTALUM	10MF	10%	25V	
C1714	1-124-120-11	ELECT	220MF	20%	25V	
C1715	1-124-478-11	ELECT	100MF	20%	25V	
C1716	1-126-803-11	ELECT	47MF	20%	25V	
C1717	1-126-803-11	ELECT	47MF	20%	25V	
C1718	1-131-353-00	TANTALUM	10MF	10%	25V	
C1719	1-126-233-11	ELECT	22MF	20%	25V	
C1720	1-130-491-00	MYLAR	0.047MF	5%	50V	
C1721	1-130-491-00	MYLAR	0.047MF	5%	50V	
C1722	1-130-491-00	MYLAR	0.047MF	5%	50V	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C1725	1-102-963-00	CERAMIC	33PF	5%	50V
C1726	1-124-122-11	ELECT	100MF	20%	35V
C1727	1-102-963-00	CERAMIC	33PF	5%	50V
C1728	1-102-963-00	CERAMIC	33PF	5%	50V
C1729	1-106-377-00	MYLAR	0.027MF		200V
C1730	1-102-963-00	CERAMIC	33PF	5%	50V
C1731	1-124-122-11	ELECT	100MF	20%	35V
C1732	1-106-377-00	MYLAR	0.027MF		200V
C1733	1-102-963-00	CERAMIC	33PF	5%	50V
C1734	1-102-963-00	CERAMIC	33PF	5%	50V
C1735	1-124-122-11	ELECT	100MF	20%	35V
C1736	1-106-377-00	MYLAR	0.027MF		200V
C1737	1-124-937-11	ELECT	10MF	20%	16V
C1738	1-124-122-11	ELECT	100MF	20%	35V
C1739	1-136-153-00	FILM	0.01MF	5%	50V
C1740	1-124-122-11	ELECT	100MF	20%	35V
C1741	1-124-122-11	ELECT	100MF	20%	35V
C1742	1-126-104-11	ELECT	470MF	20%	35V
C1744	1-124-120-11	ELECT	220MF	20%	25V
C1745	1-126-375-11	ELECT	100MF	20%	25V
C1755	1-106-220-00	MYLAR	0.1MF	10%	100V
C1756	1-106-220-00	MYLAR	0.1MF	10%	100V
C1757	1-106-220-00	MYLAR	0.1MF	10%	100V
C1758	1-106-220-00	MYLAR	0.1MF	10%	100V
C1759	1-106-220-00	MYLAR	0.1MF	10%	100V
C1760	1-106-220-00	MYLAR	0.1MF	10%	100V
C1763	1-124-907-11	ELECT	10MF	20%	50V
C1764	1-124-477-11	ELECT	47MF	20%	16V
C1765	1-124-477-11	ELECT	47MF	20%	16V
C1766	1-126-101-11	ELECT	100MF	20%	16V
C1769	1-124-907-11	ELECT	10MF	20%	50V
C1770	1-130-495-00	MYLAR	0.1MF	5%	50V
C1771	1-124-907-11	ELECT	10MF	20%	50V
C1772	1-124-907-11	ELECT	10MF	20%	50V
C1861	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1924	1-126-233-11	ELECT	22MF	20%	25V

<DIODE>

D901	8-719-911-19	DIODE 1SS119
D902	8-719-911-19	DIODE 1SS119
D1702	8-719-911-19	DIODE 1SS119
D1704	8-719-900-95	DIODE V09G
D1705	8-719-900-95	DIODE V09G
D1706	8-719-900-95	DIODE V09G
D1707	8-719-911-19	DIODE 1SS119
D1708	8-719-911-19	DIODE 1SS119
D1709	8-719-911-19	DIODE 1SS119
D1710	8-719-911-19	DIODE 1SS119
D1711	8-719-911-19	DIODE 1SS119
D1712	8-719-911-19	DIODE 1SS119
D1713	8-719-911-19	DIODE 1SS119
D1714	8-719-911-19	DIODE 1SS119
D1715	8-719-911-19	DIODE 1SS119
D1716	8-719-911-19	DIODE 1SS119
D1717	8-719-911-19	DIODE 1SS119
D1718	8-719-911-19	DIODE 1SS119
D1720	8-719-109-50	DIODE RD2.0ESB1
D1721	8-719-109-50	DIODE RD2.0ESB1
D1722	8-719-109-50	DIODE RD2.0ESB1
D1723	8-719-109-50	DIODE RD2.0ESB1

REF.NO.	PART NO.	DESCRIPTION			REMARK

<CONNECTOR>

D-1	*1-564-510-11	PLUG, CONNECTOR 7P
D-2	*1-564-511-51	PLUG, CONNECTOR 8P
D-3	*1-564-512-11	PLUG, CONNECTOR 9P
D-4	*1-564-508-11	PLUG, CONNECTOR 5P
D-5	*1-564-511-51	PLUG, CONNECTOR 8P
D-6	1-691-169-11	PIN, CONNECTOR 12P
D-7	*1-564-507-11	PLUG, CONNECTOR 4P
D-8	*1-564-506-11	PLUG, CONNECTOR 3P
D-9	*1-564-507-11	PLUG, CONNECTOR 4P
D-14	*1-564-513-11	PLUG, CONNECTOR 10P

<FUSE>

F901	⚠1-576-107-22	FUSE 3.15A/250V
	1-533-223-11	CLIP, FUSE; F901
F902	⚠1-576-107-22	FUSE 3.15A/250V
	1-533-223-11	CLIP, FUSE; F902

<IC>

IC901	8-759-145-58	IC UPC4558C
IC902	8-752-033-68	IC CXA1268P
IC903	8-759-701-56	IC NJM78M05FA
IC904	8-759-701-65	IC NJM79M05FA
IC905	8-759-701-89	IC NJM7915FA
IC906	8-759-148-84	IC UPC2415HF
IC907	8-759-140-53	IC UPD4053BC
IC908	8-759-145-58	IC UPC4558C
IC910	8-759-054-40	IC PA0036
IC1701	8-759-602-19	IC M5220L
IC1702	8-759-602-19	IC M5220L
IC1703	8-759-602-19	IC M5220L
IC1704	8-749-923-16	IC STK4278-L
IC1705	8-749-923-16	IC STK4278-L
IC1706	8-759-113-13	IC UPC1498H
IC1707	8-759-113-13	IC UPC1498H
IC1708	8-759-113-13	IC UPC1498H
IC1709	8-759-145-58	IC UPC4558C
IC1710	8-759-145-58	IC UPC4558C
IC1714	8-759-145-58	IC UPC4558C
IC1715	8-759-145-58	IC UPC4558C
IC1718	8-759-145-58	IC UPC4558C

<COIL>

L901	1-459-313-00	COIL WITH CORE (HWC)
L902	1-459-313-00	COIL WITH CORE (HWC)
L903	1-459-313-00	COIL WITH CORE (HWC)
L904	1-459-313-00	COIL WITH CORE (HWC)

<TRANSISTOR>

Q902	8-729-900-89	TRANSISTOR DTC144ES
Q906	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q907	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q908	8-729-900-89	TRANSISTOR DTC144ES
Q909	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q910	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q911	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q912	8-729-119-76	TRANSISTOR 2SA1175-HFE

<RESISTOR>

R901	1-215-463-00	METAL	56K	1%	1/4W

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R902	1-215-463-00	METAL	56K	1%	1/4W	
R903	1-215-449-00	METAL	15K	1%	1/4W	
R904	1-215-455-00	METAL	27K	1%	1/4W	
R905	1-215-449-00	METAL	15K	1%	1/4W	
R906	1-215-469-00	METAL	100K	1%	1/4W	
R907	1-215-469-00	METAL	100K	1%	1/4W	
R908	1-215-469-00	METAL	100K	1%	1/4W	
R909	1-215-473-00	METAL	150K	1%	1/4W	
R910	1-215-437-00	METAL	4.7K	1%	1/4W	
R911	1-215-453-00	METAL	22K	1%	1/4W	
R912	1-215-453-00	METAL	22K	1%	1/4W	
R913	1-215-437-00	METAL	4.7K	1%	1/4W	
R914	1-215-453-00	METAL	22K	1%	1/4W	
R915	1-215-421-00	METAL	1K	1%	1/4W	
R916	1-215-457-00	METAL	33K	1%	1/4W	
R917	1-215-453-00	METAL	22K	1%	1/4W	
R919	1-215-399-00	METAL	120	1%	1/4W	
R920	1-215-399-00	METAL	120	1%	1/4W	
R921	1-215-399-00	METAL	120	1%	1/4W	
R922	1-215-399-00	METAL	120	1%	1/4W	
R923	1-215-441-00	METAL	6.8K	1%	1/4W	
R924	1-215-441-00	METAL	6.8K	1%	1/4W	
R925	1-215-441-00	METAL	6.8K	1%	1/4W	
R926	1-215-463-00	METAL	56K	1%	1/4W	
R927	1-215-463-00	METAL	56K	1%	1/4W	
R928	1-215-461-00	METAL	47K	1%	1/4W	
R929	1-215-433-00	METAL	3.3K	1%	1/4W	
R930	1-215-433-00	METAL	3.3K	1%	1/4W	
R931	1-215-433-00	METAL	3.3K	1%	1/4W	
R932	1-215-433-00	METAL	3.3K	1%	1/4W	
R933	1-215-433-00	METAL	3.3K	1%	1/4W	
R934	1-215-433-00	METAL	3.3K	1%	1/4W	
R935	1-215-439-00	METAL	5.6K	1%	1/4W	
R936	1-215-439-00	METAL	5.6K	1%	1/4W	
R937	1-215-439-00	METAL	5.6K	1%	1/4W	
R938	1-215-417-00	METAL	680	1%	1/4W	
R939	1-215-433-00	METAL	3.3K	1%	1/4W	
R940	1-215-429-00	METAL	2.2K	1%	1/4W	
R941	1-215-441-00	METAL	6.8K	1%	1/4W	
R942	1-215-451-00	METAL	18K	1%	1/4W	
R943	1-215-441-00	METAL	6.8K	1%	1/4W	
R944	1-215-439-00	METAL	5.6K	1%	1/4W	
R945	1-215-445-00	METAL	10K	1%	1/4W	
R946	1-215-445-00	METAL	10K	1%	1/4W	
R947	1-215-439-00	METAL	5.6K	1%	1/4W	
R948	1-215-447-00	METAL	12K	1%	1/4W	
R949	1-215-439-00	METAL	5.6K	1%	1/4W	
R950	1-215-429-00	METAL	2.2K	1%	1/4W	
R951	1-215-429-00	METAL	2.2K	1%	1/4W	
R952	1-215-429-00	METAL	2.2K	1%	1/4W	
R953	1-215-439-00	METAL	5.6K	1%	1/4W	
R954	1-215-439-00	METAL	5.6K	1%	1/4W	
R955	1-215-435-00	METAL	3.9K	1%	1/4W	
R956	1-215-437-00	METAL	4.7K	1%	1/4W	
R957	1-215-441-00	METAL	6.8K	1%	1/4W	
R958	1-215-437-00	METAL	4.7K	1%	1/4W	
R959	1-215-439-00	METAL	5.6K	1%	1/4W	
R960	1-215-439-00	METAL	5.6K	1%	1/4W	
R961	1-215-439-00	METAL	5.6K	1%	1/4W	
R962	1-215-441-00	METAL	6.8K	1%	1/4W	
R963	1-215-441-00	METAL	6.8K	1%	1/4W	
R964	1-215-441-00	METAL	6.8K	1%	1/4W	
R965	⚠1-215-909-71	METAL OXIDE	47	5%	3W	F
R966	1-215-469-00	METAL	100K	1%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R967	1-215-421-00	METAL	1K	1%	1/4W	
R968	1-215-437-00	METAL	4.7K	1%	1/4W	
R969	1-249-421-11	CARBON	2.2K	5%	1/4W	
R970	⚠1-215-909-71	METAL OXIDE	47	5%	3W	F
R971	1-249-421-11	CARBON	2.2K	5%	1/4W	
R972	1-249-431-11	CARBON	15K	5%	1/4W	
R973	1-249-431-11	CARBON	15K	5%	1/4W	
R974	1-215-399-00	METAL	120	1%	1/4W	
R975	1-215-399-00	METAL	120	1%	1/4W	
R976	1-215-399-00	METAL	120	1%	1/4W	
R977	1-215-399-00	METAL	120	1%	1/4W	
R978	1-215-399-00	METAL	120	1%	1/4W	
R979	1-215-399-00	METAL	120	1%	1/4W	
R980	1-215-399-00	METAL	120	1%	1/4W	
R981	1-215-399-00	METAL	120	1%	1/4W	
R982	1-249-431-11	CARBON	15K	5%	1/4W	
R983	1-249-431-11	CARBON	15K	5%	1/4W	
R984	1-214-804-11	METAL	3.3	1%	1/2W	
R985	1-214-804-11	METAL	3.3	1%	1/2W	
R986	1-214-804-11	METAL	3.3	1%	1/2W	
R987	1-215-421-00	METAL	1K	1%	1/4W	
R988	1-215-421-00	METAL	1K	1%	1/4W	
R989	1-215-421-00	METAL	1K	1%	1/4W	
R990	1-215-421-00	METAL	1K	1%	1/4W	
R991	1-215-421-00	METAL	1K	1%	1/4W	
R992	1-215-421-00	METAL	1K	1%	1/4W	
R993	1-249-429-11	CARBON	10K	5%	1/4W	
R994	1-249-429-11	CARBON	10K	5%	1/4W	
R995	1-215-457-00	METAL	33K	1%	1/4W	
R997	1-215-467-00	METAL	82K	1%	1/4W	
R998	1-215-417-00	METAL	680	1%	1/4W	
R999	1-215-455-00	METAL	27K	1%	1/4W	
R1701	1-249-411-11	CARBON	330	5%	1/4W	
R1702	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1703	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1704	1-249-411-11	CARBON	330	5%	1/4W	
R1705	1-249-411-11	CARBON	330	5%	1/4W	
R1706	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1707	1-249-411-11	CARBON	330	5%	1/4W	
R1708	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1709	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1710	1-249-411-11	CARBON	330	5%	1/4W	
R1711	1-249-411-11	CARBON	330	5%	1/4W	
R1712	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1713	⚠1-215-886-71	METAL OXIDE	100	5%	2W	F
R1714	1-249-411-11	CARBON	330	5%	1/4W	
R1715	1-249-411-11	CARBON	330	5%	1/4W	
R1716	⚠1-215-886-71	METAL OXIDE	100	5%	2W	F
R1717	1-249-411-11	CARBON	330	5%	1/4W	
R1718	1-249-417-11	CARBON	1K	5%	1/4W	
R1719	1-214-792-00	METAL	1	1%	1/2W	
R1720	1-249-411-11	CARBON	330	5%	1/4W	
R1721	1-249-417-11	CARBON	1K	5%	1/4W	
R1722	1-249-411-11	CARBON	330	5%	1/4W	
R1723	1-249-417-11	CARBON	1K	5%	1/4W	
R1724	⚠1-215-886-71	METAL OXIDE	100	5%	2W	F
R1725	⚠1-215-886-71	METAL OXIDE	100	5%	2W	F
R1726	⚠1-215-886-71	METAL OXIDE	100	5%	2W	F
R1727	1-214-792-00	METAL	1	1%	1/2W	
R1728	1-214-792-00	METAL	1	1%	1/2W	
R1729	1-214-792-00	METAL	1	1%	1/2W	
R1730	1-247-807-31	CARBON	100	5%	1/4W	
R1731	1-249-417-11	CARBON	1K	5%	1/4W	

D

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1732	1-247-807-31	CARBON	100	5%	1/4W	
R1733	1-247-807-31	CARBON	100	5%	1/4W	
R1734	1-247-807-31	CARBON	100	5%	1/4W	
R1735	1-247-807-31	CARBON	100	5%	1/4W	
R1736	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1737	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1738	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1739	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1740	1-249-417-11	CARBON	1K	5%	1/4W	
R1741	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1742	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1743	1-249-417-11	CARBON	1K	5%	1/4W	
R1744	1-249-411-11	CARBON	330	5%	1/4W	
R1745	1-247-807-31	CARBON	100	5%	1/4W	
R1746	1-214-792-00	METAL	1	1%	1/2W	
R1747⚠	1-215-886-71	METAL OXIDE	100	5%	2W	F
R1748	1-215-421-00	METAL	1K	1%	1/4W	
R1749	1-215-421-00	METAL	1K	1%	1/4W	
R1750	1-215-421-00	METAL	1K	1%	1/4W	
R1751	1-215-421-00	METAL	1K	1%	1/4W	
R1752	1-215-421-00	METAL	1K	1%	1/4W	
R1753	1-215-421-00	METAL	1K	1%	1/4W	
R1754	1-214-792-00	METAL	1	1%	1/2W	
R1755	1-215-469-00	METAL	100K	1%	1/4W	
R1756	1-215-443-00	METAL	8.2K	1%	1/4W	
R1757	1-215-437-00	METAL	4.7K	1%	1/4W	
R1758	1-215-437-00	METAL	4.7K	1%	1/4W	
R1759	1-247-807-31	CARBON	100	5%	1/4W	
R1760	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1761	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1762	1-215-445-00	METAL	10K	1%	1/4W	
R1763	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1764	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1765	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1766	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1767	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1768	1-249-439-11	CARBON	68K	5%	1/4W	
R1769	1-215-445-00	METAL	10K	1%	1/4W	
R1770	1-247-807-31	CARBON	100	5%	1/4W	
R1771	1-247-807-31	CARBON	100	5%	1/4W	
R1772	1-215-429-00	METAL	2.2K	1%	1/4W	
R1773	1-215-429-00	METAL	2.2K	1%	1/4W	
R1774	1-215-421-00	METAL	1K	1%	1/4W	
R1775	1-249-429-11	CARBON	10K	5%	1/4W	
R1776	1-215-421-00	METAL	1K	1%	1/4W	
R1777	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1778	1-215-421-00	METAL	1K	1%	1/4W	
R1779⚠	1-215-898-71	METAL OXIDE	10K	5%	2W	F
R1780	1-214-804-11	METAL	3.3	1%	1/2W	
R1781	1-214-804-11	METAL	3.3	1%	1/2W	
R1782⚠	1-215-898-71	METAL OXIDE	10K	5%	2W	F
R1783	1-214-804-11	METAL	3.3	1%	1/2W	
R1784	1-214-804-11	METAL	3.3	1%	1/2W	
R1785⚠	1-215-898-71	METAL OXIDE	10K	5%	2W	F
R1786	1-214-804-11	METAL	3.3	1%	1/2W	
R1787	1-214-804-11	METAL	3.3	1%	1/2W	
R1788	1-249-433-11	CARBON	22K	5%	1/4W	
R1789	1-249-441-11	CARBON	100K	5%	1/4W	
R1790	1-249-433-11	CARBON	22K	5%	1/4W	
R1791	1-249-429-11	CARBON	10K	5%	1/4W	
R1792	1-215-445-00	METAL	10K	1%	1/4W	
R1793	1-247-807-31	CARBON	100	5%	1/4W	
R1794	1-215-429-00	METAL	2.2K	1%	1/4W	
R1795	1-249-433-11	CARBON	22K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1796	1-247-807-31	CARBON	100	5%	1/4W	
R1797	1-249-429-11	CARBON	10K	5%	1/4W	
R1798	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1800	1-247-807-31	CARBON	100	5%	1/4W	
R1801	1-215-439-00	METAL	5.6K	1%	1/4W	
R1802	1-215-439-00	METAL	5.6K	1%	1/4W	
R1803	1-215-439-00	METAL	5.6K	1%	1/4W	
R1805	1-215-439-00	METAL	5.6K	1%	1/4W	
R1806	1-247-807-31	CARBON	100	5%	1/4W	
R1807	1-247-807-31	CARBON	100	5%	1/4W	
R1808	1-214-792-00	METAL	1	1%	1/2W	
R1809	1-214-792-00	METAL	1	1%	1/2W	
R1810	1-214-792-00	METAL	1	1%	1/2W	
R1811	1-214-792-00	METAL	1	1%	1/2W	
R1812	1-214-792-00	METAL	1	1%	1/2W	
R1813	1-214-792-00	METAL	1	1%	1/2W	
R1814	1-249-431-11	CARBON	15K	5%	1/4W	
R1815	1-247-885-00	CARBON	180K	5%	1/4W	
R1816	1-249-431-11	CARBON	15K	5%	1/4W	
R1817	1-247-885-00	CARBON	180K	5%	1/4W	
R1818	1-247-807-31	CARBON	100	5%	1/4W	
R1819	1-215-437-00	METAL	4.7K	1%	1/4W	
R1820	1-215-437-00	METAL	4.7K	1%	1/4W	
R1821	1-215-437-00	METAL	4.7K	1%	1/4W	
R1822	1-215-445-00	METAL	10K	1%	1/4W	
R1823	1-215-445-00	METAL	10K	1%	1/4W	
R1824	1-215-433-00	METAL	3.3K	1%	1/4W	
R1825	1-215-433-00	METAL	3.3K	1%	1/4W	
R1826	1-215-433-00	METAL	3.3K	1%	1/4W	
R1827	1-215-445-00	METAL	10K	1%	1/4W	
R1828	1-215-445-00	METAL	10K	1%	1/4W	
R1829	1-249-434-11	CARBON	27K	5%	1/4W	
R1830	1-249-434-11	CARBON	27K	5%	1/4W	
R1831	1-247-807-31	CARBON	100	5%	1/4W	
R1832	1-215-471-00	METAL	120K	1%	1/4W	
R1833	1-215-471-00	METAL	120K	1%	1/4W	
R1834	1-215-471-00	METAL	120K	1%	1/4W	
R1835	1-215-437-00	METAL	4.7K	1%	1/4W	
R1836	1-215-437-00	METAL	4.7K	1%	1/4W	
R1837	1-215-421-00	METAL	1K	1%	1/4W	
R1838	1-249-431-11	CARBON	15K	5%	1/4W	
R1839	1-249-431-11	CARBON	15K	5%	1/4W	
R1858	1-215-445-00	METAL	10K	1%	1/4W	
R1859	1-215-445-00	METAL	10K	1%	1/4W	
R1860	1-215-397-00	METAL	100	1%	1/4W	
R1861	1-215-453-00	METAL	22K	1%	1/4W	
R1862	1-215-453-00	METAL	22K	1%	1/4W	
R1863	1-215-397-00	METAL	100	1%	1/4W	
R1864	1-215-437-00	METAL	4.7K	1%	1/4W	
R1865	1-215-453-00	METAL	22K	1%	1/4W	
R1866	1-215-453-00	METAL	22K	1%	1/4W	
R1867	1-215-437-00	METAL	4.7K	1%	1/4W	
R1868	1-215-449-00	METAL	15K	1%	1/4W	
R1869	1-215-445-00	METAL	10K	1%	1/4W	
R1870	1-215-445-00	METAL	10K	1%	1/4W	
R1871	1-215-445-00	METAL	10K	1%	1/4W	
R1872	1-215-437-00	METAL	4.7K	1%	1/4W	
R1873	1-215-437-00	METAL	4.7K	1%	1/4W	
R1874	1-215-437-00	METAL	4.7K	1%	1/4W	
R1875	1-215-437-00	METAL	4.7K	1%	1/4W	
R1876	1-215-437-00	METAL	4.7K	1%	1/4W	
R1877	1-215-437-00	METAL	4.7K	1%	1/4W	
R1878	1-215-475-00	METAL	180K	1%	1/4W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1879	1-215-475-00	METAL 180K 1% 1/4W	
R1880	1-215-475-00	METAL 180K 1% 1/4W	
R1881	1-215-461-00	METAL 47K 1% 1/4W	
R1882	1-215-445-00	METAL 10K 1% 1/4W	
R1883	1-215-453-00	METAL 22K 1% 1/4W	
R1884	1-215-397-00	METAL 100 1% 1/4W	
R1885	1-215-445-00	METAL 10K 1% 1/4W	
R1886	1-215-455-00	METAL 27K 1% 1/4W	
R1887	1-215-397-00	METAL 100 1% 1/4W	
R1888	1-215-461-00	METAL 47K 1% 1/4W	
R1889	1-215-457-00	METAL 33K 1% 1/4W	
R1890	1-215-449-00	METAL 15K 1% 1/4W	
R1891	1-215-443-00	METAL 8.2K 1% 1/4W	
R1892	1-215-445-00	METAL 10K 1% 1/4W	
R1894	1-215-429-00	METAL 2.2K 1% 1/4W	
R1895	1-215-445-00	METAL 10K 1% 1/4W	
R1896	1-215-445-00	METAL 10K 1% 1/4W	
R1897	1-215-449-00	METAL 15K 1% 1/4W	
R1898	1-215-445-00	METAL 10K 1% 1/4W	
R1899	1-215-421-00	METAL 1K 1% 1/4W	
R1900	1-215-429-00	METAL 2.2K 1% 1/4W	
R1901	1-215-449-00	METAL 15K 1% 1/4W	
R1902	1-215-445-00	METAL 10K 1% 1/4W	
R1903	1-215-445-00	METAL 10K 1% 1/4W	
R1904	1-215-445-00	METAL 10K 1% 1/4W	
R1905	1-215-445-00	METAL 10K 1% 1/4W	
R1906	1-215-429-00	METAL 2.2K 1% 1/4W	
R1907	1-215-445-00	METAL 10K 1% 1/4W	
R1908	1-215-445-00	METAL 10K 1% 1/4W	
R1909	1-215-445-00	METAL 10K 1% 1/4W	
R1910	1-215-445-00	METAL 10K 1% 1/4W	
R1911	1-215-453-00	METAL 22K 1% 1/4W	
R1916	1-215-423-00	METAL 1.2K 1% 1/4W	
R1920	1-215-453-00	METAL 22K 1% 1/4W	
R1921	1-215-445-00	METAL 10K 1% 1/4W	
R1922	1-215-445-00	METAL 10K 1% 1/4W	
R1924	1-215-429-00	METAL 2.2K 1% 1/4W	
R1925	1-215-429-00	METAL 2.2K 1% 1/4W	
R1926	1-215-429-00	METAL 2.2K 1% 1/4W	
R1927	1-215-445-00	METAL 10K 1% 1/4W	
R1928	1-215-421-00	METAL 1K 1% 1/4W	
R1929	1-215-445-00	METAL 10K 1% 1/4W	
R1930	1-215-397-00	METAL 100 1% 1/4W	
R1931	1-215-397-00	METAL 100 1% 1/4W	
R1932	1-215-453-00	METAL 22K 1% 1/4W	
R1933	1-215-453-00	METAL 22K 1% 1/4W	
R1934	1-215-429-00	METAL 2.2K 1% 1/4W	
R1937	1-215-445-00	METAL 10K 1% 1/4W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV901	1-241-765-11	RES, ADJ, CARBON 22K	
RV902	1-241-765-11	RES, ADJ, CARBON 22K	
RV903	1-241-765-11	RES, ADJ, CARBON 22K	
RV904	1-241-765-11	RES, ADJ, CARBON 22K	
RV905	1-241-765-11	RES, ADJ, CARBON 22K	
RV906	1-241-765-11	RES, ADJ, CARBON 22K	
RV907	1-241-765-11	RES, ADJ, CARBON 22K	
RV908	1-241-765-11	RES, ADJ, CARBON 22K	
RV909	1-241-765-11	RES, ADJ, CARBON 22K	
RV910	1-241-765-11	RES, ADJ, CARBON 22K	
RV911	1-241-761-11	RES, ADJ, CARBON 1K	
RV912	1-241-765-11	RES, ADJ, CARBON 22K	
RV913	1-241-769-11	RES, ADJ, CARBON 470K	
RV914	1-241-630-11	RES, ADJ, CARBON 10K	
RV915	1-241-630-11	RES, ADJ, CARBON 10K	
RV916	1-241-765-11	RES, ADJ, CARBON 22K	
RV917	1-241-765-11	RES, ADJ, CARBON 22K	
RV918	1-241-765-11	RES, ADJ, CARBON 22K	
RV919	1-241-765-11	RES, ADJ, CARBON 22K	
RV920	1-241-765-11	RES, ADJ, CARBON 22K	
RV921	1-241-765-11	RES, ADJ, CARBON 22K	
RV922	1-241-765-11	RES, ADJ, CARBON 22K	
RV923	1-241-765-11	RES, ADJ, CARBON 22K	
RV924	1-241-765-11	RES, ADJ, CARBON 22K	
RV925	1-241-765-11	RES, ADJ, CARBON 22K	
RV926	1-241-765-11	RES, ADJ, CARBON 22K	
RV927	1-241-765-11	RES, ADJ, CARBON 22K	
RV928	1-241-630-11	RES, ADJ, CARBON 10K	
RV929	1-241-765-11	RES, ADJ, CARBON 22K	
RV930	1-241-630-11	RES, ADJ, CARBON 10K	
RV931	1-241-765-11	RES, ADJ, CARBON 22K	
RV932	1-241-765-11	RES, ADJ, CARBON 22K	
RV933	1-241-765-11	RES, ADJ, CARBON 22K	
RV934	1-241-765-11	RES, ADJ, CARBON 22K	
RV935	1-241-765-11	RES, ADJ, CARBON 22K	
RV936	1-241-765-11	RES, ADJ, CARBON 22K	
RV937	1-241-630-11	RES, ADJ, CARBON 10K	
RV938	1-241-630-11	RES, ADJ, CARBON 10K	
RV939	1-241-630-11	RES, ADJ, CARBON 10K	
RV940	1-241-765-11	RES, ADJ, CARBON 22K	
RV941	1-241-765-11	RES, ADJ, CARBON 22K	
RV942	1-241-765-11	RES, ADJ, CARBON 22K	
RV943	1-241-765-11	RES, ADJ, CARBON 22K	
RV944	1-241-765-11	RES, ADJ, CARBON 22K	
RV945	1-241-765-11	RES, ADJ, CARBON 22K	
RV946	1-241-765-11	RES, ADJ, CARBON 22K	
RV947	1-241-765-11	RES, ADJ, CARBON 22K	
RV948	1-241-765-11	RES, ADJ, CARBON 22K	
RV949	1-241-765-11	RES, ADJ, CARBON 22K	
RV950	1-241-765-11	RES, ADJ, CARBON 22K	
RV951	1-241-765-11	RES, ADJ, CARBON 22K	
RV952	1-241-765-11	RES, ADJ, CARBON 22K	
RV953	1-241-765-11	RES, ADJ, CARBON 22K	
RV954	1-241-765-11	RES, ADJ, CARBON 22K	
RV956	1-241-765-11	RES, ADJ, CARBON 22K	
RV958	1-241-765-11	RES, ADJ, CARBON 22K	
RV959	1-241-765-11	RES, ADJ, CARBON 22K	
RV961	1-241-765-11	RES, ADJ, CARBON 22K	
RV962	1-241-765-11	RES, ADJ, CARBON 22K	
RV963	1-241-765-11	RES, ADJ, CARBON 22K	
RV964	1-241-765-11	RES, ADJ, CARBON 22K	
RV965	1-241-765-11	RES, ADJ, CARBON 22K	
RV966	1-241-765-11	RES, ADJ, CARBON 22K	
RV967	1-241-765-11	RES, ADJ, CARBON 22K	
RV968	1-241-765-11	RES, ADJ, CARBON 22K	
RV969	1-241-765-11	RES, ADJ, CARBON 22K	
RV970	1-241-765-11	RES, ADJ, CARBON 22K	
RV971	1-241-765-11	RES, ADJ, CARBON 22K	
RV972	1-241-765-11	RES, ADJ, CARBON 22K	
RV973	1-241-765-11	RES, ADJ, CARBON 22K	
RV974	1-241-765-11	RES, ADJ, CARBON 22K	
RV975	1-241-765-11	RES, ADJ, CARBON 22K	
RV976	1-241-765-11	RES, ADJ, CARBON 22K	
RV977	1-241-765-11	RES, ADJ, CARBON 22K	
RV978	1-241-765-11	RES, ADJ, CARBON 22K	
RV979	1-241-765-11	RES, ADJ, CARBON 22K	

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV980	1-238-019-11	RES, ADJ, CARBON 47K	
RV981	1-241-765-11	RES, ADJ, CARBON 22K	
RV982	1-241-765-11	RES, ADJ, CARBON 22K	

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*1-650-883-11 DS BOARD
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1841	1-126-233-11	ELECT	22MF	20%	25V	
C1842	1-126-233-11	ELECT	22MF	20%	25V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1841	8-719-911-19	DIODE 1SS119	
D1842	8-719-911-19	DIODE 1SS119	
D1843	8-719-911-19	DIODE 1SS119	
D1844	8-719-911-19	DIODE 1SS119	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
DS-6	1-691-182-11	CONNECTOR (BOARD TO BOARD) 12P	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1801	8-759-183-37	IC CA0007AD	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1841	1-215-441-00	METAL	6.8K	1%	1/4W	
R1842	1-215-455-00	METAL	27K	1%	1/4W	
R1844	1-215-445-00	METAL	10K	1%	1/4W	
R1850	1-215-429-00	METAL	2.2K	1%	1/4W	
R1851	1-215-421-00	METAL	1K	1%	1/4W	

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*A-1342-214-A V BOARD, COMPLETE
****

4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1501	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C1502	1-126-101-11	ELECT	100MF	20%	16V	
C1504	1-106-383-00	MYLAR	0.047MF		200V	
C1505	1-124-907-11	ELECT	10MF	20%	50V	
C1506	1-106-359-00	MYLAR	0.0047MF	10%	200V	
C1507	1-106-367-00	MYLAR	0.01MF	10%	100V	
C1508	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C1509	1-106-367-00	MYLAR	0.01MF	10%	100V	
C1510	1-126-355-11	ELECT	33MF	20%	160V	
C1511	1-124-668-11	ELECT	2.2MF	20%	200V	
C1512	1-106-391-12	MYLAR	0.1MF	10%	200V	
C1513	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C1514	1-102-951-00	CERAMIC	15PF	5%	50V	
C1515	1-102-959-00	CERAMIC	22PF	5%	50V	
C1516	1-102-963-00	CERAMIC	33PF	5%	50V	
C1517	1-124-667-11	ELECT	10MF	20%	50V	
C1518	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1519	1-106-359-00	MYLAR	0.0047MF	10%	200V	
C1520	1-126-803-11	ELECT	47MF	20%	16V	
C1521	1-124-907-11	ELECT	10MF	20%	50V	

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1534	1-101-003-00	CERAMIC	0.0047MF		50V	
C1551	1-124-122-11	ELECT	100MF	20%	50V	
C1552	1-124-122-11	ELECT	100MF	20%	50V	
C1553	1-102-824-00	CERAMIC	470PF	5%	50V	
C1554	1-102-824-00	CERAMIC	470PF	5%	50V	
C1555	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1556	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1557	1-102-824-00	CERAMIC	470PF	5%	50V	
C1558	1-102-824-00	CERAMIC	470PF	5%	50V	
C1559	1-102-824-00	CERAMIC	470PF	5%	50V	
C1560	1-102-824-00	CERAMIC	470PF	5%	50V	
C1561	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1562	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1563	1-130-483-00	MYLAR	0.01MF	5%	50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1501	8-719-911-19	DIODE 1SS119	
D1502	8-719-911-19	DIODE 1SS119	
D1503	8-719-911-19	DIODE 1SS119	
D1504	8-719-911-19	DIODE 1SS119	
D1505	8-719-911-19	DIODE 1SS119	
D1506	8-719-911-19	DIODE 1SS119	
D1507	8-719-110-88	DIODE RD39ESB2	
D1508	8-719-110-88	DIODE RD39ESB2	
D1509	8-719-911-19	DIODE 1SS119	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1551	8-759-145-58	IC UPC4558C	
IC1552	8-759-912-77	IC LM324N	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L1502	1-408-418-00	INDUCTOR	56UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1501	8-729-017-05	TRANSISTOR 2SA1837	
Q1502	8-729-017-06	TRANSISTOR 2SC4793	
Q1503	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1505	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1506	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1507	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1508	8-729-142-86	TRANSISTOR 2SC3733	
Q1551	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q1552	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q1553	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q1554	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q1555	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q1556	8-729-141-83	TRANSISTOR 2SB1094-LK	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1501	1-249-451-11	CARBON	2.2	5%	1/4W	F
R1502	1-249-414-11	CARBON	560	5%	1/4W	F
R1503	1-247-734-11	CARBON	39	5%	1/2W	F
R1504	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1505	1-247-807-31	CARBON	100	5%	1/4W	
R1506	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1507	1-249-412-11	CARBON	390	5%	1/4W	
R1508	1-249-436-11	CARBON	39K	5%	1/4W	
R1509	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1510	1-249-436-11	CARBON	39K	5%	1/4W	

The components identified by shading and mark ⚠ are critical for safety.
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V **H1** **H2**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1511	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1512	1-249-441-11	CARBON	100K	5%	1/4W	
R1513	1-249-432-11	CARBON	18K	5%	1/4W	
R1514	1-247-807-31	CARBON	100	5%	1/4W	
R1515	1-249-435-11	CARBON	33K	5%	1/4W	
R1517	1-247-713-11	CARBON	1K	5%	1/4W	F
R1519⚠	1-215-916-91	METAL OXIDE	680	5%	3W	F
R1520	1-249-432-11	CARBON	18K	5%	1/4W	
R1521	1-249-414-11	CARBON	560	5%	1/4W	F
R1522	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1523	1-249-400-11	CARBON	39	5%	1/4W	F
R1524	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1525	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1526	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1527	1-249-414-11	CARBON	560	5%	1/4W	
R1528	1-249-429-11	CARBON	10K	5%	1/4W	
R1529	1-249-414-11	CARBON	560	5%	1/4W	
R1530⚠	1-216-451-91	METAL OXIDE	120	5%	2W	F
R1531	1-249-429-11	CARBON	10K	5%	1/4W	
R1532	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1533	1-247-903-00	CARBON	1M	5%	1/4W	
R1534	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1535	1-249-392-11	CARBON	8.2	5%	1/4W	F
R1540	1-215-445-00	METAL	10K	1%	1/4W	
R1541	1-215-445-00	METAL	10K	1%	1/4W	
R1542	1-215-445-00	METAL	10K	1%	1/4W	
R1551	1-215-445-00	METAL	10K	1%	1/4W	
R1552	1-215-423-00	METAL	1.2K	1%	1/4W	
R1553	1-249-417-11	CARBON	1K	5%	1/4W	
R1554	1-215-445-00	METAL	10K	1%	1/4W	
R1555	1-215-375-00	METAL	12	1%	1/4W	
R1556	1-215-375-00	METAL	12	1%	1/4W	
R1557	1-215-375-00	METAL	12	1%	1/4W	
R1558	1-215-445-00	METAL	10K	1%	1/4W	
R1559	1-215-445-00	METAL	10K	1%	1/4W	
R1560	1-215-445-00	METAL	10K	1%	1/4W	
R1561	1-215-423-00	METAL	1.2K	1%	1/4W	
R1562	1-215-423-00	METAL	1.2K	1%	1/4W	
R1563	1-215-445-00	METAL	10K	1%	1/4W	
R1564	1-249-417-11	CARBON	1K	5%	1/4W	
R1565	1-215-445-00	METAL	10K	1%	1/4W	
R1566	1-215-375-00	METAL	12	1%	1/4W	
R1567	1-215-375-00	METAL	12	1%	1/4W	
R1568	1-215-375-00	METAL	12	1%	1/4W	
R1569	1-215-445-00	METAL	10K	1%	1/4W	
R1570	1-215-445-00	METAL	10K	1%	1/4W	
R1571	1-249-417-11	CARBON	1K	5%	1/4W	
R1572	1-215-445-00	METAL	10K	1%	1/4W	
R1573	1-215-375-00	METAL	12	1%	1/4W	
R1574	1-215-375-00	METAL	12	1%	1/4W	
R1575	1-215-375-00	METAL	12	1%	1/4W	
R1576	1-215-445-00	METAL	10K	1%	1/4W	
R1577	1-215-445-00	METAL	10K	1%	1/4W	
R1578	1-249-417-11	CARBON	1K	5%	1/4W	
R1579	1-249-417-11	CARBON	1K	5%	1/4W	
R1580	1-249-417-11	CARBON	1K	5%	1/4W	
R1581	1-249-432-11	CARBON	18K	5%	1/4W	
R1582	1-249-432-11	CARBON	18K	5%	1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
V2	*1-564-518-11	PLUG, CONNECTOR 3P
V22	1-573-300-21	CONNECTOR, BOARD TO BOARD 18P

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*1-643-591-11 H1 BOARD
****

REF.NO.	PART NO.	DESCRIPTION
	4-033-777-01	HOLDER, LED
	*4-374-987-01	GUIDE, LIGHT (KP-46XBR35/53XBR35(U/C))
	4-381-686-01	BRACKET (B), LIGHT GUIDE
	*4-389-517-01	GUIDE (R), LIGHT (KP-61XBR38)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C1601	1-124-907-11	ELECT	10MF	20%	50V
C1602	1-124-907-11	ELECT	10MF	20%	50V
C1603	1-124-907-11	ELECT	10MF	20%	50V
C1604	1-124-261-00	ELECT	10MF	20%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D1601	8-719-812-41	DIODE TLR124
D1602	8-719-812-41	DIODE TLR124

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
H11	*1-564-526-11	PLUG, CONNECTOR 11P
H15	*1-564-517-11	PLUG, CONNECTOR 2P

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC1601	8-741-148-33	IC SBX1483-59

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R1601	1-249-430-11	CARBON	12K	5%	1/4W
R1602	1-249-425-11	CARBON	4.7K	5%	1/4W
R1603	1-249-421-11	CARBON	2.2K	5%	1/4W
R1604	1-249-419-11	CARBON	1.5K	5%	1/4W
R1606	1-247-807-31	CARBON	100	5%	1/4W
R1607	1-247-807-31	CARBON	100	5%	1/4W
R1608	1-249-411-11	CARBON	330	5%	1/4W
R1609	1-249-411-11	CARBON	330	5%	1/4W

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION
S1601	1-571-731-11	SWITCH, TACTIL
S1602	1-571-731-11	SWITCH, TACTIL
S1603	1-571-731-11	SWITCH, TACTIL
S1604	1-571-731-11	SWITCH, TACTIL
S1605	1-571-731-11	SWITCH, TACTIL
S1606⚠	1-571-731-21	SWITCH, TACTIL

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*1-643-592-11 H2 BOARD
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C1651	1-124-477-11	ELECT	47MF	20%	16V
C1655	1-124-927-11	ELECT	4.7MF	20%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D1651	8-719-908-03	DIODE GP08D
D1652	8-719-908-03	DIODE GP08D
D1653	8-719-108-12	DIODE RD9.1EW

H2 **YA**

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REF.NO.	PART NO.	DESCRIPTION				REMARK
D1654	8-719-108-12	DIODE RD9.1EW				
D1655	8-719-108-12	DIODE RD9.1EW				
D1659	8-719-911-19	DIODE 1SS119				
D1660	8-719-110-88	DIODE RD39ESB2				
D1661	8-719-110-88	DIODE RD39ESB2				
D1662	8-719-110-88	DIODE RD39ESB2				
D1663	8-719-110-88	DIODE RD39ESB2				
		<CONNECTOR>				
H22	*1-564-519-11	PLUG, CONNECTOR 4P				
H25	*1-564-517-11	PLUG, CONNECTOR 2P				
H26	*1-564-519-11	PLUG, CONNECTOR 4P				
H28	*1-564-518-11	PLUG, CONNECTOR 3P				
H211	1-564-517-11	PLUG, CONNECTOR 2P				
H216	*1-564-525-11	PLUG, CONNECTOR 10P				
H225	*1-564-518-11	PLUG, CONNECTOR 3P				
H2-20	*1-564-517-11	PLUG, CONNECTOR 2P				
H2-21	*1-564-517-11	PLUG, CONNECTOR 2P				(KP-46XBR35/53XBR35(U/C))
	1-564-517-11	PLUG, CONNECTOR 2P				(KP-61XBR38)
		<JACK>				
J1651	1-695-817-11	JACK BLOCK, PIN 3P				
		<JUMPER>				
JW54	1-123-549-00	ELECT	6.8MF	20%	50V	(KP-61XBR38)
JW55	1-123-549-00	ELECT	6.8MF	20%	50V	(KP-61XBR38)
		<TRANSISTOR>				
Q1651	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1652	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1653	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R1651	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1652	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1653	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1654	1-249-430-11	CARBON	12K	5%	1/4W	
R1655	1-249-417-11	CARBON	1K	5%	1/4W	
R1656	1-249-417-11	CARBON	1K	5%	1/4W	
R1657	1-249-436-11	CARBON	39K	5%	1/4W	
R1658	1-249-437-11	CARBON	47K	5%	1/4W	
R1659	1-249-437-11	CARBON	47K	5%	1/4W	
		<RELAY>				
RY1651	1-515-586-11	RELAY (DS-2)				
RY1652	1-515-586-11	RELAY (DS-2)				
		<SWITCH>				
S1651	1-571-731-11	SWITCH, TACTIL				
S1652	1-571-731-11	SWITCH, TACTIL				
S1653	1-571-731-11	SWITCH, TACTIL				
S1654	1-571-731-11	SWITCH, TACTIL				
S1655	1-571-731-11	SWITCH, TACTIL				

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REF.NO.	PART NO.	DESCRIPTION				REMARK
	*1-644-632-11	YA BOARD ********				
		<CAPACITOR>				
C7001	1-124-902-00	ELECT	0.47MF	20%	50V	
C7002	1-102-824-00	CERAMIC	470PF	5%	50V	
C7003	1-124-910-11	ELECT	47MF	20%	50V	
C7005	1-124-618-11	ELECT	2200MF	20%	35V	
C7006	1-137-399-11	FILM	0.1MF	5%	100V	
C7007	1-124-910-11	ELECT	47MF	20%	50V	
C7008	1-124-910-11	ELECT	47MF	20%	50V	
C7009	1-137-399-11	FILM	0.1MF	5%	100V	
C7010	1-124-618-11	ELECT	2200MF	20%	35V	
C7012	1-124-910-11	ELECT	47MF	20%	50V	
C7013	1-124-902-00	ELECT	0.47MF	20%	50V	
C7014	1-102-824-00	CERAMIC	470PF	5%	50V	
C7015	1-124-917-11	ELECT	33MF	20%	50V	
C7016	1-124-572-11	ELECT	100MF	20%	63V	
C7017	1-124-921-11	ELECT	470MF	20%	63V	
C7020	1-124-903-11	ELECT	1MF	20%	50V	
C7021	1-124-903-11	ELECT	1MF	20%	50V	
C7041	1-124-484-11	ELECT	220MF	20%	35V	
C7042	1-124-484-11	ELECT	220MF	20%	35V	
		<DIODE>				
D7041	8-719-946-29	DIODE 1SS198TA				
D7042	8-719-946-29	DIODE 1SS198TA				
		<IC>				
IC7001	8-749-920-14	IC STK4412				
		<TRANSISTOR>				
Q7001	8-729-141-26	TRANSISTOR 2SC3622A-LK				
Q7002	8-729-141-26	TRANSISTOR 2SC3622A-LK				
Q7041	8-729-141-26	TRANSISTOR 2SC3622A-LK				
		<RESISTOR>				
R7001	1-249-433-11	CARBON	22K	5%	1/4W	
R7002	1-249-433-11	CARBON	22K	5%	1/4W	
R7003	1-249-441-11	CARBON	100K	5%	1/4W	
R7006	1-249-430-11	CARBON	12K	5%	1/4W	
R7007	1-249-411-11	CARBON	330	5%	1/4W	
R7008 ⚠	1-215-888-71	METAL OXIDE	220	5%	2W	F
R7009	1-249-389-11	CARBON	4.7	5%	1/4W	F
R7010	1-249-389-11	CARBON	4.7	5%	1/4W	F
R7011 ⚠	1-215-888-71	METAL OXIDE	220	5%	2W	F
R7012	1-249-430-11	CARBON	12K	5%	1/4W	
R7014	1-249-411-11	CARBON	330	5%	1/4W	
R7016	1-249-441-11	CARBON	100K	5%	1/4W	
R7017	1-249-441-11	CARBON	100K	5%	1/4W	
R7018	1-247-889-00	CARBON	270K	5%	1/4W	
R7019	1-247-807-31	CARBON	100	5%	1/4W	F
R7023	1-215-445-00	METAL	10K	1%	1/4W	
R7024	1-215-445-00	METAL	10K	1%	1/4W	
R7030	1-215-439-00	METAL	5.6K	1%	1/4W	
R7031	1-215-439-00	METAL	5.6K	1%	1/4W	
R7041	1-247-895-00	CARBON	470K	5%	1/4W	
R7042	1-247-895-00	CARBON	470K	5%	1/4W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R7043	1-247-893-11	CARBON	390K	5%	1/4W	
R7044	1-249-437-11	CARBON	47K	5%	1/4W	
R7100⚠	1-217-286-11	WIREWOUND	1	10%	5W	F
R7101⚠	1-217-288-11	WIREWOUND	1.5	10%	5W	F
R7102⚠	1-217-288-11	WIREWOUND	1.5	10%	5W	F

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
YA2	*1-564-507-11	PLUG, CONNECTOR 4P	
YA7	*1-564-505-11	PLUG, CONNECTOR 2P	
YA8	*1-564-506-11	PLUG, CONNECTOR 3P	
YA28	*1-564-508-11	PLUG, CONNECTOR 5P	

****

*1-644-633-11 YG BOARD
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-533-189-11	HOLDER, FUSE	
	4-382-854-11	SCREW (M3X10), P, SW (+)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C7201	1-125-463-11	ELECT(BLOCK)	2200MF	20%	63V	
C7202	1-124-607-11	ELECT	2200MF	20%	50V	
C7203	1-101-821-00	CERAMIC	0.0022MF		500V	
C7204	1-101-821-00	CERAMIC	0.0022MF		500V	
C7205	1-101-821-00	CERAMIC	0.0022MF		500V	
C7206	1-101-821-00	CERAMIC	0.0022MF		500V	
C7207	1-161-743-00	CERAMIC	0.0047MF		400V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D7201	8-719-110-30	DIODE RD12ESB1	
D7202⚠	8-719-312-09	DIODE RBA-402	
D7203⚠	8-719-312-09	DIODE RBA-402	

<FUSE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
F7201⚠	1-532-746-11	FUSE, GLASS TUBE 4A/125V	
F7202⚠	1-532-746-11	FUSE, GLASS TUBE 4A/125V	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R7201	1-249-406-11	CARBON	120	5%	1/4W	F
R7202⚠	1-215-879-71	METAL OXIDE	47K	5%	1W	F
R7203⚠	1-215-879-71	METAL OXIDE	47K	5%	1W	F

<RELAY>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RY7201⚠	1-515-684-12	RELAY	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
YG1	*1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P	
YG2	*1-564-507-11	PLUG, CONNECTOR 4P	
YG3	*1-564-507-11	PLUG, CONNECTOR 4P	
YG5	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
YG9	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
YG12	1-564-505-11	PLUG, CONNECTOR 2P	

****

*A-1390-340-A ZR BOARD, COMPLETE
****

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1903	1-249-414-11	CARBON	560	5%	1/4W	
R1904	1-249-414-11	CARBON	560	5%	1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
ZR2	*1-564-518-11	PLUG, CONNECTOR 3P	
ZR18	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P	
ZR-1	*1-564-522-11	PLUG, CONNECTOR 7P	

****

*A-1390-346-A ZG BOARD, COMPLETE
****

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1913	1-249-414-11	CARBON	560	5%	1/4W	
R1914	1-249-414-11	CARBON	560	5%	1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
ZG19	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P	
ZG-2	1-564-523-11	PLUG, CONNECTOR 8P	

****

*A-1390-347-A ZB BOARD, COMPLETE
****

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1923	1-249-414-11	CARBON	560	5%	1/4W	
R1924	1-249-414-11	CARBON	560	5%	1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
ZB20	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P	
ZB-3	1-564-524-11	PLUG, CONNECTOR 9P	

****

*A-1390-351-A N BOARD, COMPLETE
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	4-382-854-11	SCREW (M3X10), P, SW (+)	
	4-383-023-01	SPACER, MICA	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C801	1-125-489-00	ELECT(BLOCK)	560MF	20%	200V	
C802	1-123-024-21	ELECT	33MF		160V	
C803	1-136-729-11	FILM	1.5MF	5%	400V	
C804	1-106-383-00	MYLAR	0.047MF		200V	
C805	1-102-030-00	CERAMIC	330PF	10%	500V	
C806	1-130-495-00	MYLAR	0.1MF	5%	50V	
C807	1-124-667-11	ELECT	10MF	20%	50V	
C808	1-126-183-11	ELECT	1000MF	20%	16V	
C809	1-124-903-11	ELECT	1MF	20%	50V	
C810	1-124-903-11	ELECT	1MF	20%	50V	
C811	1-124-902-00	ELECT	0.47MF	20%	50V	
C812	1-102-973-00	CERAMIC	100PF	5%	50V	
C813	1-102-244-00	CERAMIC	220PF	10%	500V	
C814	1-106-391-12	MYLAR	0.1MF	10%	200V	
C815	1-106-367-00	MYLAR	0.01MF	10%	200V	
C816	1-124-907-11	ELECT	10MF	20%	50V	

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N

REF.NO.	PART NO.	DESCRIPTION			REMARK
C817	1-124-119-00	ELECT	330MF	20%	16V
C818	1-102-824-00	CERAMIC	470PF	5%	50V
C819	1-124-907-11	ELECT	10MF	20%	50V
C820	1-124-907-11	ELECT	10MF	20%	50V
C821	1-124-907-11	ELECT	10MF	20%	50V
C822	1-124-034-51	ELECT	33MF	20%	16V
C823	1-124-907-11	ELECT	10MF	20%	50V
C824	1-124-034-51	ELECT	33MF	20%	16V
C825	1-124-034-51	ELECT	33MF	20%	16V
C826	1-124-907-11	ELECT	10MF	20%	50V
C827	1-124-907-11	ELECT	10MF	20%	50V
C828	1-124-907-11	ELECT	10MF	20%	50V
C829	1-124-034-51	ELECT	33MF	20%	16V
C830	1-124-907-11	ELECT	10MF	20%	50V
C831	1-106-220-00	MYLAR	0.1MF	10%	100V
C832	1-124-907-11	ELECT	10MF	20%	50V
C833	1-124-916-11	ELECT	22MF	20%	50V
C834	1-130-487-00	MYLAR	0.022MF	5%	50V
C835	1-124-927-11	ELECT	4.7MF	20%	50V
C836	1-130-475-00	MYLAR	0.0022MF	5%	50V
C837	1-136-169-00	FILM	0.22MF	5%	50V
C838	1-130-475-00	MYLAR	0.0022MF	5%	50V
C839	1-102-106-00	CERAMIC	100PF	10%	50V
C840	⚠1-136-807-11	FILM	0.018MF	3%	1.6KV
C841	1-136-729-11	FILM	1.5MF	5%	400V
C842	1-130-471-00	MYLAR	0.001MF	5%	50V
C850	1-136-169-00	FILM	0.22MF	5%	50V
C851	1-124-907-11	ELECT	10MF	20%	50V
C852	1-124-907-11	ELECT	10MF	20%	50V
C853	1-106-220-00	MYLAR	0.1MF	10%	100V
C854	1-126-329-11	ELECT	470MF	20%	50V
C855	1-124-514-11	ELECT	100MF	20%	50V
C856	1-162-114-00	CERAMIC	0.0047MF		2KV
C858	1-124-119-00	ELECT	330MF	20%	16V
C888	1-124-903-11	ELECT	1MF	20%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D801	8-719-928-08	DIODE ERD28-08S
D802	8-719-300-80	DIODE RU-1C
D803	8-719-109-85	DIODE RD5.1ESB2
D804	8-719-911-19	DIODE 1SS119
D805	8-719-911-19	DIODE 1SS119
D806	8-719-109-85	DIODE RD5.1ESB2
D807	8-719-109-85	DIODE RD5.1ESB2
D808	8-719-911-19	DIODE 1SS119
D809	8-719-911-19	DIODE 1SS119
D810	8-719-911-19	DIODE 1SS119
D811	8-719-109-85	DIODE RD5.1ESB2
D812	8-719-911-19	DIODE 1SS119
D813	8-719-911-19	DIODE 1SS119
D814	8-719-911-19	DIODE 1SS119
D815	8-719-110-36	DIODE RD13ESB2
D817	8-719-945-80	DIODE ERC06-15S
D820	8-719-911-19	DIODE 1SS119
D850	8-719-109-71	DIODE RD3.9ESB1
D851	⚠8-719-903-09	DIODE V30N
D852	8-719-911-19	DIODE 1SS119
D853	⚠8-719-903-09	DIODE V30N
D891	8-719-110-49	DIODE RD18ESB2
D892	8-719-110-49	DIODE RD18ESB2

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC801	8-759-231-58	IC TA7812S
IC802	8-759-103-93	IC UPC393C
IC803	8-759-503-91	IC TL082ACP
IC804	8-759-103-93	IC UPC393C
IC805	8-759-100-75	IC UPC1394C

<COIL>

REF.NO.	PART NO.	DESCRIPTION	
L801	1-459-862-11	COIL, CHOKE	90UH
L802	1-424-603-11	COIL, CHOKE	1.05MMH
L803	1-459-313-00	COIL WITH CORE	(HWC)
L804	1-410-482-31	INDUCTOR	100UH
L805	⚠1-424-603-11	COIL, CHOKE	1.05MMH

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
N-1	1-506-348-99	PIN, CONNECTOR 3P
N-2	*1-564-508-11	PLUG, CONNECTOR 5P
N-3	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
N-4	*1-564-507-11	PLUG, CONNECTOR 4P
N-5	*1-564-508-11	PLUG, CONNECTOR 5P
N-6	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
N-7	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
N-8	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
N-9	1-506-348-99	PIN, CONNECTOR 3P
N-10	*1-564-511-11	PLUG, CONNECTOR 8P
N-20	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P
N-21	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P
N-30	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
N-851	*1-506-371-00	PIN, CONNECTOR 2P
N-853	*1-506-371-00	PIN, CONNECTOR 2P

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION
NL801	1-519-108-99	LAMP, NEON

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q801	⚠8-729-201-61	TRANSISTOR 2SC2555-1
Q802	8-729-119-80	TRANSISTOR 2SC2688-LK
Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q806	8-729-119-80	TRANSISTOR 2SC2688-LK
Q807	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q808	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q809	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q811	⚠8-729-805-07	TRANSISTOR 2SD1887-CA
Q820	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q851	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q852	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q853	8-729-823-81	TRANSISTOR 2SC4632-CB7

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R801	⚠1-216-378-91	METAL OXIDE	5.6	5%	2W	F
R802	⚠1-215-926-91	METAL OXIDE	33K	5%	3W	F
R803	⚠1-215-926-91	METAL OXIDE	33K	5%	3W	F
R804	1-249-429-11	CARBON	10K	5%	1/4W	
R805	1-249-423-11	CARBON	3.3K	5%	1/4W	
R806	1-249-425-11	CARBON	4.7K	5%	1/4W	
R807	1-249-441-11	CARBON	100K	5%	1/4W	
R808	1-249-417-11	CARBON	1K	5%	1/4W	
R809	1-249-417-11	CARBON	1K	5%	1/4W	
R810	1-249-441-11	CARBON	100K	5%	1/4W	

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N **S**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R811	1-249-421-11	CARBON	2.2K	5%	1/4W	
R812	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R813	⚠1-215-921-91	METAL OXIDE	4.7K	5%	3W	F
R814	1-249-409-11	CARBON	220	5%	1/4W	
R815	1-249-415-11	CARBON	680	5%	1/4W	
R816	1-214-777-00	METAL	100K	1%	1/4W	
R817	1-215-471-00	METAL	120K	1%	1/4W	
R818	1-215-471-00	METAL	120K	1%	1/4W	
R819	1-215-450-00	METAL	16K	1%	1/4W	
R820	1-215-451-00	METAL	18K	1%	1/4W	
R821	1-249-423-11	CARBON	3.3K	5%	1/4W	
R822	1-249-433-11	CARBON	22K	5%	1/4W	
R823	1-249-429-11	CARBON	10K	5%	1/4W	
R824	1-215-469-00	METAL	100K	1%	1/4W	
R825	1-215-453-00	METAL	22K	1%	1/4W	
R826	1-214-962-00	METAL	820K	1%	1/4W	
R827	1-214-764-00	METAL	30K	1%	1/4W	
R828	1-215-455-00	METAL	27K	1%	1/4W	
R829	1-215-455-00	METAL	27K	1%	1/4W	
R830	⚠1-215-928-91	METAL OXIDE	68K	5%	3W	F
R831	⚠1-215-928-91	METAL OXIDE	68K	5%	3W	F
R832	1-249-417-11	CARBON	1K	5%	1/4W	
R833	1-249-419-11	CARBON	1.5K	5%	1/4W	
R834	1-249-419-11	CARBON	1.5K	5%	1/4W	
R835	1-215-429-00	METAL	2.2K	1%	1/4W	
R836	1-215-435-00	METAL	3.9K	1%	1/4W	
R837	1-249-433-11	CARBON	22K	5%	1/4W	
R838	1-249-435-11	CARBON	33K	5%	1/4W	
R839	1-249-438-11	CARBON	56K	5%	1/4W	
R840	1-249-434-11	CARBON	27K	5%	1/4W	
R841	1-249-429-11	CARBON	10K	5%	1/4W	
R842	1-249-435-11	CARBON	33K	5%	1/4W	
R843	1-249-423-11	CARBON	3.3K	5%	1/4W	
R844	1-249-433-11	CARBON	22K	5%	1/4W	
R845	1-249-435-11	CARBON	33K	5%	1/4W	
R846	1-249-429-11	CARBON	10K	5%	1/4W	
R847	1-214-761-00	METAL	22K	1%	1/4W	
R848	1-215-429-00	METAL	2.2K	1%	1/4W	
R849	1-215-421-00	METAL	1K	1%	1/4W	
R850	1-215-429-00	METAL	2.2K	1%	1/4W	
R851	1-215-404-00	METAL	200	1%	1/4W	
⊠R852	⚠	METAL			1/4W	
R853	1-215-469-00	METAL	100K	1%	1/4W	
R854	1-249-430-11	CARBON	12K	5%	1/4W	
R855	1-215-469-00	METAL	100K	1%	1/4W	
R856	1-249-430-11	CARBON	12K	5%	1/4W	
R857	1-249-433-11	CARBON	22K	5%	1/4W	
R858	1-249-413-11	CARBON	470	5%	1/4W	
R859	1-249-435-11	CARBON	33K	5%	1/4W	
R860	1-249-441-11	CARBON	100K	5%	1/4W	
R861	1-249-421-11	CARBON	2.2K	5%	1/4W	
R862	1-249-434-11	CARBON	27K	5%	1/4W	
R863	1-249-431-11	CARBON	15K	5%	1/4W	
R864	1-249-428-11	CARBON	8.2K	5%	1/4W	
R865	1-249-440-11	CARBON	82K	5%	1/4W	
R866	1-249-436-11	CARBON	39K	5%	1/4W	
R867	1-249-437-11	CARBON	47K	5%	1/4W	
R868	1-249-428-11	CARBON	8.2K	5%	1/4W	
R869	1-249-429-11	CARBON	10K	5%	1/4W	
R870	1-249-417-11	CARBON	1K	5%	1/4W	
R871	1-249-440-11	CARBON	82K	5%	1/4W	
R872	1-249-423-11	CARBON	3.3K	5%	1/4W	
R873	1-249-441-11	CARBON	100K	5%	1/4W	
R874	1-249-435-11	CARBON	33K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R875	1-249-421-11	CARBON	2.2K	5%	1/4W	
R876	1-215-426-00	METAL	1.6K	1%	1/4W	
R877	1-249-435-11	CARBON	33K	5%	1/4W	
R878	1-249-441-11	CARBON	100K	5%	1/4W	
R879	⚠1-216-489-91	METAL OXIDE	27K	5%	3W	F
R880	1-249-429-11	CARBON	10K	5%	1/4W	
R881	1-214-761-00	METAL	22K	1%	1/4W	
R882	1-249-433-11	CARBON	22K	5%	1/4W	
R883	1-249-417-11	CARBON	1K	5%	1/4W	
R884	⚠1-215-894-91	METAL OXIDE	2.2K	5%	2W	F
R885	1-249-438-11	CARBON	56K	5%	1/4W	
R886	1-249-414-11	CARBON	560	5%	1/4W	
R887	1-215-397-00	METAL	100	1%	1/4W	
R888	1-249-410-11	CARBON	270	5%	1/4W	
R889	1-249-417-11	CARBON	1K	5%	1/4W	
R890	1-249-417-11	CARBON	1K	5%	1/4W	
R891	⚠1-216-489-91	METAL OXIDE	27K	5%	3W	F
R892	1-249-417-11	CARBON	1K	5%	1/4W	F
R893	1-215-453-00	METAL	22K	1%	1/4W	
R894	1-249-401-11	CARBON	47	5%	1/4W	
R895	1-202-731-00	SOLID	10M	20%	1/2W	
R896	1-260-111-11	CARBON	10K	5%	1/2W	
R903	1-247-735-11	SOLID	47	20%	1/2W	
R904	⚠1-215-928-91	METAL OXIDE	68K	5%	3W	F
R905	⚠1-215-911-91	METAL OXIDE	100	5%	3W	F

<SPARK GAP>

SG801	1-519-422-11	GAP, SPARK

<TRANSFORMER>

T801	⚠1-437-078-11	TRANSFORMER, HORIZONTAL DRIVE
T802	1-437-090-00	HDT
T803	⚠1-453-121-11	TRANSFORMER ASSY, FLYBACK (NX-2630B4)

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*A-1394-421-A S BOARD, COMPLETE
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*4-033-528-01 CASE (UPPER LID), SHIELD, P4

<CAPACITOR>

C3403	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C3408	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3409	1-124-589-11	ELECT	47MF	20%	16V
C3411	1-124-034-51	ELECT	33MF	20%	16V
C3442	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C3446	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C3447	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C3448	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3449	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C3451	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3452	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C3453	1-124-589-11	ELECT	47MF	20%	16V
C3454	1-126-162-11	ELECT	3.3MF	20%	50V
C3455	1-126-163-11	ELECT	4.7MF	20%	16V
C3456	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C3457	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C3459	1-124-589-11	ELECT	47MF	20%	16V
C3460	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C3461	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C3507	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- ✱ : Selected to yield optimum performance.

S **U**

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3508	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C3509	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C3515	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C3540	1-126-157-11	ELECT	10MF	20%	16V

<DIODE>

D3444	8-719-404-46	DIODE MA110

<IC>

IC3401	8-759-403-44	IC MN1280-S
IC3402	8-759-070-42	IC M37201M6-A18FP
IC3441	8-759-708-05	IC NJM78L05A
IC3442	8-759-084-12	IC LA7945
IC3443	8-759-187-22	IC LC7458B-03
IC3444	8-759-403-44	IC MN1280-S

<COIL>

L3401	1-408-421-00	INDUCTOR	100UH
L3461	1-408-409-00	INDUCTOR	10UH
L3462	1-408-421-00	INDUCTOR	100UH

<TRANSISTOR>

Q3441	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q3444	8-729-903-10	TRANSISTOR FMW1

<RESISTOR>

R3401	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3402	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3403	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3404	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3405	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R3406	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R3407	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3408	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R3409	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3441	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3442	1-216-041-00	METAL GLAZE	470	5%	1/10W
R3443	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3444	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R3445	1-216-689-11	METAL GLAZE	39K	5%	1/10W
R3446	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R3449	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3450	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R3451	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R3452	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R3453	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R3454	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3455	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R3456	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R3463	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3464	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3465	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3472	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R3473	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3474	1-216-295-00	METAL GLAZE	0	5%	1/10W
R3504	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R3509	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3511	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3512	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R3513	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R3514	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R3519	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3520	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3521	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3525	1-216-295-00	METAL GLAZE	0	5%	1/10W
R3526	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3528	1-216-295-00	METAL GLAZE	0	5%	1/10W
R3529	1-216-295-00	METAL GLAZE	0	5%	1/10W
R3530	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3531	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3532	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3535	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3537	1-216-295-00	METAL GLAZE	0	5%	1/10W
R3540	1-216-073-00	METAL GLAZE	10K	5%	1/10W

<CONNECTOR>

S-42	*1-565-514-11	SOCKET, CONNECTOR 2P
S-42	*1-568-378-21	PIN, CONNECTOR 3P
S-43	*1-564-508-11	PLUG, CONNECTOR 5P
S-45	*1-564-511-71	PLUG, CONNECTOR 8P
S-46	*1-564-506-11	PLUG, CONNECTOR 3P
S-47	*1-564-506-11	PLUG, CONNECTOR 3P

<CRYSTAL>

X3401	1-577-358-21	VIBRATOR, CERAMIC
X3441	1-579-126-11	VIBRATOR, CERAMIC

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*A-1394-429-A U BOARD, COMPLETE
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<CAPACITOR>

C1004	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C1005	1-126-301-11	ELECT	1MF	20%	50V
C1006	1-164-096-11	CERAMIC	0.01MF		50V
C1007	1-124-598-11	ELECT	22MF	20%	25V
C1008	1-124-598-11	ELECT	22MF	20%	25V
C1010	1-124-465-00	ELECT	0.47MF	20%	50V
C1011	1-124-465-00	ELECT	0.47MF	20%	50V
C1012	1-124-465-00	ELECT	0.47MF	20%	50V
C1013	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C1014	1-126-163-11	ELECT	4.7MF	20%	50V
C1016	1-126-163-11	ELECT	4.7MF	20%	50V
C1018	1-126-301-11	ELECT	1MF	20%	50V
C1020	1-124-242-00	ELECT	33MF	20%	25V
C1021	1-124-465-00	ELECT	0.47MF	20%	50V
C1022	1-124-242-00	ELECT	33MF	20%	25V
C1026	1-102-949-00	CERAMIC	12PF	5%	50V
C1027	1-102-949-00	CERAMIC	12PF	5%	50V
C1028	1-124-242-00	ELECT	33MF	20%	25V
C1029	1-124-282-00	ELECT	22MF	20%	16V
C1030	1-124-478-11	ELECT	100MF	20%	25V
C1031	1-102-963-00	CERAMIC	33PF	5%	50V
C1034	1-124-282-00	ELECT	22MF	20%	16V
C1036	1-124-282-00	ELECT	22MF	20%	16V
C1037	1-124-282-00	ELECT	22MF	20%	16V
C1039	1-124-478-11	ELECT	100MF	20%	25V
C1047	1-124-465-00	ELECT	0.47MF	20%	50V
C1048	1-126-301-11	ELECT	1MF	20%	50V

U

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1049	1-124-598-11	ELECT	22MF	20%	25V	
C1051	1-124-465-00	ELECT	0.47MF	20%	50V	
C1055	1-124-589-11	ELECT	47MF	20%	16V	
C1056	1-124-499-11	ELECT	1MF	20%	50V	
C1057	1-124-768-11	ELECT	4.7MF	20%	50V	
C1059	1-124-499-11	ELECT	1MF	20%	50V	
C1060	1-124-499-11	ELECT	1MF	20%	50V	
C1061	1-124-499-11	ELECT	1MF	20%	50V	
C1062	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C1063	1-124-768-11	ELECT	4.7MF	20%	50V	
C1066	1-126-101-11	ELECT	100MF	20%	16V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION				REMARK
D1005	8-719-110-36	DIODE RD13ESB2				
D1009	8-719-110-36	DIODE RD13ESB2				
D1010	8-719-110-36	DIODE RD13ESB2				
D1011	8-719-110-36	DIODE RD13ESB2				
D1012	8-719-110-36	DIODE RD13ESB2				
D1013	8-719-110-36	DIODE RD13ESB2				
D1017	8-719-110-36	DIODE RD13ESB2				
D1018	8-719-110-36	DIODE RD13ESB2				
D1019	8-719-110-36	DIODE RD13ESB2				
D1020	8-719-109-66	DIODE RD3.3ESB2				
D1021	8-719-109-66	DIODE RD3.3ESB2				
D1022	8-719-109-66	DIODE RD3.3ESB2				

<IC>

REF.NO.	PART NO.	DESCRIPTION				REMARK
IC1002	8-752-067-28	IC CXA1545AS				
IC1011	8-759-145-57	IC UPC4557C				

<COIL>

REF.NO.	PART NO.	DESCRIPTION				REMARK
L1001	1-408-422-00	INDUCTOR	120UH			
L1002	1-408-422-00	INDUCTOR	120UH			

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q1009	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1010	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1016	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1017	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1018	8-729-141-26	TRANSISTOR 2SC3622A-LK				
Q1019	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1020	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1021	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1022	8-729-141-26	TRANSISTOR 2SC3622A-LK				
Q1023	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1029	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1030	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1031	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1032	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1033	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1034	8-729-119-76	TRANSISTOR 2SA1175-HFE				

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1011	1-249-435-11	CARBON	33K	5%	1/4W	
R1012	1-249-434-11	CARBON	27K	5%	1/4W	
R1013	1-249-417-11	CARBON	1K	5%	1/4W	
R1014	1-249-441-11	CARBON	100K	5%	1/4W	
R1015	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1016	1-249-441-11	CARBON	100K	5%	1/4W	
R1017	1-247-807-31	CARBON	100	5%	1/4W	
R1018	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1019	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1023	1-247-807-31	CARBON	100	5%	1/4W	
R1026	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1028	1-249-434-11	CARBON	27K	5%	1/4W	
R1029	1-249-435-11	CARBON	33K	5%	1/4W	
R1030	1-249-417-11	CARBON	1K	5%	1/4W	
R1032	1-249-417-11	CARBON	1K	5%	1/4W	
R1033	1-249-393-11	CARBON	10	5%	1/4W	F
R1034	1-249-417-11	CARBON	1K	5%	1/4W	
R1036	1-247-883-00	CARBON	150K	5%	1/4W	
R1037	1-247-883-00	CARBON	150K	5%	1/4W	
R1038	1-247-883-00	CARBON	150K	5%	1/4W	
R1043	1-249-417-11	CARBON	1K	5%	1/4W	
R1046	1-249-413-11	CARBON	470	5%	1/4W	
R1048	1-247-807-31	CARBON	100	5%	1/4W	
R1050	1-247-807-31	CARBON	100	5%	1/4W	
R1051	1-249-417-11	CARBON	1K	5%	1/4W	
R1052	1-249-413-11	CARBON	470	5%	1/4W	
R1054	1-247-807-31	CARBON	100	5%	1/4W	
R1055	1-249-413-11	CARBON	470	5%	1/4W	
R1056	1-247-807-31	CARBON	100	5%	1/4W	
R1057	1-249-441-11	CARBON	100K	5%	1/4W	
R1059	1-247-807-31	CARBON	100	5%	1/4W	
R1061	1-249-409-11	CARBON	220	5%	1/4W	
R1062	1-249-441-11	CARBON	100K	5%	1/4W	
R1063	1-249-409-11	CARBON	220	5%	1/4W	
R1066	1-215-437-00	METAL	4.7K	1%	1/4W	
R1067	1-215-437-00	METAL	4.7K	1%	1/4W	
R1068	1-215-437-00	METAL	4.7K	1%	1/4W	
R1069	1-215-437-00	METAL	4.7K	1%	1/4W	
R1070	1-249-411-11	CARBON	330	5%	1/4W	
R1071	1-249-431-11	CARBON	15K	5%	1/4W	
R1073	1-249-431-11	CARBON	15K	5%	1/4W	
R1077	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1078	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1079	1-247-807-31	CARBON	100	5%	1/4W	
R1080	1-215-423-00	METAL	1.2K	1%	1/4W	
R1081	1-215-421-00	METAL	1K	1%	1/4W	
R1089	1-247-807-31	CARBON	100	5%	1/4W	
R1094	1-247-807-31	CARBON	100	5%	1/4W	
R1096	1-247-807-31	CARBON	100	5%	1/4W	
R1099	1-249-413-11	CARBON	470	5%	1/4W	
R1110	1-247-807-31	CARBON	100	5%	1/4W	
R1116	1-249-441-11	CARBON	100K	5%	1/4W	
R1118	1-249-413-11	CARBON	470	5%	1/4W	
R1120	1-249-413-11	CARBON	470	5%	1/4W	
R1121	1-249-441-11	CARBON	100K	5%	1/4W	
R1122	1-249-413-11	CARBON	470	5%	1/4W	
R1133	1-247-807-31	CARBON	100	5%	1/4W	
R1134	1-247-807-31	CARBON	100	5%	1/4W	
R1137	1-249-411-11	CARBON	330	5%	1/4W	
R1138	1-249-415-11	CARBON	680	5%	1/4W	
R1139	1-249-413-11	CARBON	470	5%	1/4W	
R1140	1-249-413-11	CARBON	470	5%	1/4W	
R1141	1-249-413-11	CARBON	470	5%	1/4W	
R1142	1-249-415-11	CARBON	680	5%	1/4W	
R1147	1-247-807-31	CARBON	100	5%	1/4W	
R1148	1-247-807-31	CARBON	100	5%	1/4W	
R1149	1-249-417-11	CARBON	1K	5%	1/4W	
R1150	1-247-807-31	CARBON	100	5%	1/4W	
R1151	1-247-807-31	CARBON	100	5%	1/4W	

U **UT**

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1152	1-249-417-11	CARBON 1K 5% 1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
U-12	1-573-300-21	CONNECTOR, BOARD TO BOARD 18P	
U-13	1-573-300-21	CONNECTOR, BOARD TO BOARD 18P	
U-16	*1-564-513-11	PLUG, CONNECTOR 10P	
U-22	*1-565-930-11	CONNECTOR (RECEPTACLE) 30P	
U-23	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
U-32	*1-564-510-11	PLUG, CONNECTOR 7P	
U-47	*1-564-506-11	PLUG, CONNECTOR 3P	

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*A-1394-434-A UT BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1152	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1153	1-164-096-11	CERAMIC	0.01MF		50V	
C1154	1-164-096-11	CERAMIC	0.01MF		50V	
C1155	1-126-103-11	ELECT	470MF	20%	16V	
C1158	1-124-598-11	ELECT	22MF	20%	25V	
C1159	1-124-598-11	ELECT	22MF	20%	25V	
C1160	1-124-598-11	ELECT	22MF	20%	25V	
C1161	1-124-598-11	ELECT	22MF	20%	25V	
C1164	1-126-103-11	ELECT	470MF	20%	16V	
C1165	1-126-301-11	ELECT	1MF	20%	50V	
C1166	1-126-301-11	ELECT	1MF	20%	50V	
C1167	1-126-301-11	ELECT	1MF	20%	50V	
C1168	1-126-301-11	ELECT	1MF	20%	50V	
C1199	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C1200	1-102-129-00	CERAMIC	0.01MF	10%	50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1151	8-719-110-36	DIODE RD13ESB2	
D1152	8-719-110-36	DIODE RD13ESB2	
D1158	8-719-110-36	DIODE RD13ESB2	
D1159	8-719-110-36	DIODE RD13ESB2	
D1160	8-719-110-36	DIODE RD13ESB2	
D1161	8-719-110-36	DIODE RD13ESB2	
D1162	8-719-110-36	DIODE RD13ESB2	
D1163	8-719-110-36	DIODE RD13ESB2	
D1164	8-719-110-36	DIODE RD13ESB2	
D1165	8-719-110-36	DIODE RD13ESB2	
D1166	8-719-110-36	DIODE RD13ESB2	
D1167	8-719-110-36	DIODE RD13ESB2	
D1168	8-719-110-36	DIODE RD13ESB2	
D1169	8-719-110-36	DIODE RD13ESB2	
D1170	8-719-110-36	DIODE RD13ESB2	
D1171	8-719-110-36	DIODE RD13ESB2	

<JACK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J1001	1-537-188-11	TERMINAL, PUSH (8P)	
J1003	1-573-970-11	BLOCK, (S) TERMINAL	
J1004	1-695-304-11	TERMINAL BLOCK, S	
J1005	1-695-054-11	JACK BLOCK, PIN	
J1006	1-573-970-11	BLOCK, (S) TERMINAL	
J1007	1-573-969-11	JACK BLOCK, PIN	
J1008	1-573-969-11	JACK BLOCK, PIN	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1153	1-249-403-11	CARBON	68	5%	1/4W	
R1154	1-249-429-11	CARBON	10K	5%	1/4W	
R1158	1-247-804-11	CARBON	75	5%	1/4W	
R1164	1-247-895-00	CARBON	470K	5%	1/4W	
R1165	1-247-895-00	CARBON	470K	5%	1/4W	
R1166	1-247-895-00	CARBON	470K	5%	1/4W	
R1167	1-247-895-00	CARBON	470K	5%	1/4W	
R1168	1-247-895-00	CARBON	470K	5%	1/4W	
R1169	1-249-403-11	CARBON	68	5%	1/4W	
R1170	1-249-403-11	CARBON	68	5%	1/4W	
R1171	1-247-895-00	CARBON	470K	5%	1/4W	
R1172	1-247-895-00	CARBON	470K	5%	1/4W	
R1173	1-247-804-11	CARBON	75	5%	1/4W	
R1174	1-247-895-00	CARBON	470K	5%	1/4W	
R1175	1-247-895-00	CARBON	470K	5%	1/4W	
R1176	1-247-804-11	CARBON	75	5%	1/4W	
R1177	1-247-804-11	CARBON	75	5%	1/4W	
R1178	1-247-895-00	CARBON	470K	5%	1/4W	
R1179	1-247-895-00	CARBON	470K	5%	1/4W	
R1180	1-247-804-11	CARBON	75	5%	1/4W	
R1181	1-247-804-11	CARBON	75	5%	1/4W	
R1182	1-247-804-11	CARBON	75	5%	1/4W	
R1183	1-247-895-00	CARBON	470K	5%	1/4W	
R1184	1-247-895-00	CARBON	470K	5%	1/4W	
R1185	1-247-895-00	CARBON	470K	5%	1/4W	
R1186	1-247-895-00	CARBON	470K	5%	1/4W	
R1187	1-247-804-11	CARBON	75	5%	1/4W	
R1188	1-247-804-11	CARBON	75	5%	1/4W	
R1191	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1192	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1193	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1194	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1195	1-249-429-11	CARBON	10K	5%	1/4W	
R1196	1-249-429-11	CARBON	10K	5%	1/4W	

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION	REMARK
S1150	1-572-198-11	SWITCH, KEYBOARD	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
UT9	*1-564-517-11	PLUG, CONNECTOR 2P	
UT11	*1-564-519-11	PLUG, CONNECTOR 4P	
UT22	*1-565-928-11	CONNECTOR (TUB) 30P	
UT23	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
UT35	*1-564-518-11	PLUG, CONNECTOR 3P	
UT38	1-564-517-11	PLUG, CONNECTOR 2P	

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MISCELLANEOUS
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	⚠1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)	
	1-417-178-11	SELECTOR, ANTENNA (AS-2)	
	⚠1-451-396-21	DEFLECTION YOKE (Y936PA)	
	⚠1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)	
	⚠1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
	1-504-141-11	SPEAKER (13CM)(KP-46XBR35/53XBR35(U/C))	
	1-504-312-11	SPEAKER (SQUAWKER)(5CM) (KP-61XBR38)	
	1-504-313-11	SPEAKER (16CM) (KP-61XBR38)	
	1-544-580-21	SPEAKER (2.5CM)(KP-46XBR35/53XBR35(U/C))	
	*1-555-400-00	CABLE, PIN	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-557-056-31	CABLE, P-P	
	⚠1-696-002-12	CORD, POWER(WITH NOISE FILTER) 7.0A/125V	
	⚠8-736-634-05	PICTURE TUBE 07MK3(G)	
	⚠8-736-635-05	PICTURE TUBE 07MK3(B) (KP-46XBR35/53XBR35(U/C))	
	⚠8-736-636-05	PICTURE TUBE 07MK3(R) (KP-46XBR35/53XBR35(U/C))	
	⚠8-736-640-05	PICTURE TUBE 07MK2(B) (KP-61XBR38)	
	⚠8-736-641-05	PICTURE TUBE 07MK2(R) (KP-61XBR38)	
⧓R900	⚠	METAL 1/4W	
⧓R901	⚠	METAL 1/4W	
⧓R902	⚠	METAL 1/4W	
T7201	⚠1-423-311-21	TRANSFORMER, POWER	

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ACCESSORIES AND PACKING MATERIALS

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3-758-548-21	MANUAL, INSTRUCTION (ENGLISH) (KP-46XBR35/53XBR35(U/C)/61XBR38)
3-758-548-31	MANUAL, INSTRUCTION (FRENCH) (KP-53XBR35(CND))
3-758-548-41	MANUAL, INSTRUCTION (SPANISH) (KP-46XBR35/53XBR35(US)/61XBR38)
*4-030-895-01	JOINT
*4-037-320-01	CUSHION (UPPER) (ASSY) (KP-53XBR35(U/C))
*4-037-670-01	CUSHION (UPPER) (ASSY) (KP-46XBR35)
*4-040-904-01	CUSHION (UPPER) (ASSY) (KP-61XBR38)
*4-037-321-01	CUSHION (LOWER) (ASSY) (KP-53XBR35(U/C))
*4-037-671-01	CUSHION (LOWER) (ASSY) (KP-46XBR35)
*4-040-905-01	CUSHION (LOWER) (ASSY) (KP-61XBR38)
*4-037-326-01	INDIVIDUAL CARTON (KP-53XBR35(U/C))
*4-037-672-01	INDIVIDUAL CARTON (KP-46XBR35)
*4-040-907-02	INDIVIDUAL CARTON (KP-61XBR38)
*4-037-327-01	TRAY (KP-53XBR35(U/C))
*4-037-671-01	TRAY (KP-46XBR35)
*4-040-906-01	TRAY (KP-61XBR38)
*4-037-674-01	PLATE, TOP (KP-46XBR35)
*4-037-328-01	PLATE, TOP (KP-53XBR35(U/C))
*4-040-111-01	PLATE, TOP (KP-61XBR38)
*4-037-675-01	PLATE, BOTTOM (KP-46XBR35)
*4-037-329-01	PLATE, BOTTOM (KP-53XBR35(U/C))
*4-040-903-01	PLATE, BOTTOM (KP-61XBR38)
*4-041-423-01	SHEET, PROTECTION (KP-46XBR35)
*4-042-463-01	SHEET, PROTECTION (KP-53XBR35(U/C))
*4-042-464-01	SHEET, PROTECTION (KP-61XBR38)
*4-041-425-01	BAG, PROTECTION (KP-46XBR35)
*4-041-426-01	BAG, PROTECTION (KP-53XBR35(U/C))
*4-041-428-01	BAG, PROTECTION (KP-61XBR38)
*4-039-795-02	PALLET, CUSHION (KP-53XBR35(U/C))
*4-042-310-01	PALLET, CUSHION (KP-46XBR35)

REMOTE COMMANDER

1-693-156-21	REMOTE COMMANDER (RM-Y114A)
9-902-623-01	COVER, BATTERY (FOR RM-Y114A)
9-902-624-01	COVER (FOR RM-Y114A)

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- ※ : Selected to yield optimum performance.

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